Ventilation

Energy Recovery Ventilator

MFL63726410

LG TOTAL HVAC SOLUTION PROVIDER

ENGINEERING PRODUCT DATA BOOK

LG Life's Good

Region : EU

Published on Apr. 24, 2025

Ventilation
General Information

Model Line Up

1. Model Line Up

Product	Phase	Chassis	Capacity Index	Model Name
			CMH	
ERV	1	ZC05	500	ZE050GUCCA0
		ZC10	800	ZE080GUCDA0
			1000	ZE100GUCDA0

* The capacity index may differ from actual capacity values.

Product Data

ERV

ERV

1. Specifications

1.1 Product

ZE050GUCCA0

Category		Unit	Specification
Major	Minor		
Classification	Chassis	-	ZC05
Nominal Capacity	-	m³/h	500
		ft³/min	294
Power Supply	Case 1	V, Phase, Hz	220-230-240, 1, 50/60
	Case 2	V, Phase, Hz	-
	Limit Range of Voltage(Case 1)	V	198 - 264
	Limit Range of Voltage(Case 2)	V	-
	Running Current by Voltage	A	1.7
Fresh Air Conditioning Load(DX Type)	Cooling	kW	-
	Heating	kW	-
Exterior	Material	-	Galvanized steel plate
Energy Exchange Mode	Step	-	SH / H / L
	Running Current(SH / H / L)	A	1.7 / 1.2 / 0.8
	Power Input(SH / H / L)	W	250 / 160 / 105
	Air Flow Rate(SH / H / L)	m³/h	500 / 400 / 300
	External Static Pressure(SH / H / L)	Pa(mmAq)	150 / 96 / 54
	Temperature Exchange Efficiency (SH / H / L)	%	79 / 79 / 82
	Temperature Exchange Efficiency(Heating)(ErP)	%	78
	Temperature Exchange Efficiency(Heating)(JIS)	%	79 / 79 / 82
	Enthalpy Exchange Efficiency Cooling (SH / H / L)	%	68 / 68 / 75
	Enthalpy Exchange Efficiency Heating (SH / H / L)	%	75 / 75 / 78
Bypass Mode	Step	-	-
	Running Current(SH / H / L)	A	-
	Power Input(SH / H / L)	W	-
	Air Flow Rate(SH / H / L)	m³/h	-
	External Static Pressure(SH / H / L)	Pa(mmAq)	-
Sound Pressure Level	Energy Exchange Mode(SH / H / L)	dB(A)	39.0 / 34.0 / 29.0
	Bypass Mode (SH / H / L)	dB(A)	-
Sound Power Level	Energy Exchange Mode(SH / H / L)	dB(A)	58.0 / 56.0 / 47.0
	Bypass Mode (SH / H / L)	dB(A)	-
Electrical Characteristic	Fan Motor_Full Load Amperes (FLA)	A	1.7
	Maximum Fuse Amperes (MFA)	A	6.8
	Minimium Circuit Amperes (MCA)	A	2.1
Heat Exchanger	Type	-	Air to air cross flow heat exchanger
Humidifier(DX Type)	Type	-	-
	Dehumidification Rate	kg/h	-
	Pressure Feed Water	MPa	-
	Number	EA	-
Dimensions	Net(W x H x D)	mm	1,014 x 273 x 988
	Shipping(W x H x D)	mm	1,280 x 365 x 1,175
Weight	Net	kg	41.7
	Shipping	kg	49.8
Refrigerant(DX Type)	Type	-	-
Piping Connection(DX Type)	Liquid	mm(inch)	-
	Gas	mm(inch)	-
	Water	mm(inch)	-
	Drain(O.D / I.D)	mm	-

1. Specifications

Category		Unit	Specification
Major	**Minor**		
Duct Work	Qty	EA	4
	Size	mm	200
Supply Air Fan	Type	-	Sirocco fan
	Qty	EA	1
Exhaust Air Fan	Type	-	Sirocco fan
	Qty	EA	1
Filters	Type	-	OA : Pre, SA : F7, RA : M5
	Quantity	EA	F7 : 2ea, M5 : 2ea, Pre : 1ea
	Dimensions(W x H x D)	mm	Pre:855 x 6 x 233 / M5F7:425 x 16 x 230
Operation Range	Outdoor Air Temperature / Relative Humidity	℃ / %RH	-10~40/20~80

Note

1. Due to our policy of innovation some specifications may be changed without notification.
2. Sound level values are depend on the ambient conditions and values are normally higher in actual operation.
3. ERV Mode : Total Heat Recovery Ventilation mode
4. Temperature and Enthalpy Exchange Efficiency are based on the following conditions. Temperature Exchange Efficiency is tested at heating conditions.
   - Cooling : Indoor Ambient Temp. 26.5°CDB / 64.5%RH, Outdoor Ambient Temp. 34.5°CDB / 75%RH
   - Heating : Indoor Ambient Temp. 20.5°CDB / 59.5%RH, Outdoor Ambient Temp. 5°CDB / 65%RH
5. M5 - ISO ePM10 80% Filter / F7 - ISO ePM10 85% Filter

1. Specifications

ZE080GUCDA0

Category		Unit	Specification
Major	Minor		
Classification	Chassis	-	ZC10
Nominal Capacity	-	m³/h	800
		ft³/min	471
Power Supply	Case 1	V, Phase, Hz	220-230-240, 1, 50/60
	Case 2	V, Phase, Hz	-
	Limit Range of Voltage(Case 1)	V	198 - 264
	Limit Range of Voltage(Case 2)	V	-
	Running Current by Voltage	A	2.2
Fresh Air Conditioning Load(DX Type)	Cooling	kW	-
	Heating	kW	-
Exterior	Material	-	Galvanized steel plate
Energy Exchange Mode	Step	-	SH / H / L
	Running Current(SH / H / L)	A	2.2 / 1.4 / 0.8
	Power Input(SH / H / L)	W	330 / 200 / 100
	Air Flow Rate(SH / H / L)	m³/h	800 / 640 / 480
	External Static Pressure(SH / H / L)	Pa(mmAq)	160 / 102 / 57
	Temperature Exchange Efficiency (SH / H / L)	%	77 / 79 / 82
	Temperature Exchange Efficiency(Heating)(ErP)	%	75
	Temperature Exchange Efficiency(Heating)(JIS)	%	77 / 79 / 82
	Enthalpy Exchange Efficiency Cooling (SH / H / L)	%	68 / 70 / 73
	Enthalpy Exchange Efficiency Heating (SH / H / L)	%	73 / 76 / 79
Bypass Mode	Step	-	-
	Running Current(SH / H / L)	A	-
	Power Input(SH / H / L)	W	-
	Air Flow Rate(SH / H / L)	m³/h	-
	External Static Pressure(SH / H / L)	Pa(mmAq)	-
Sound Pressure Level	Energy Exchange Mode(SH / H / L)	dB(A)	39.0 / 34.0 / 28.0
	Bypass Mode (SH / H / L)	dB(A)	-
Sound Power Level	Energy Exchange Mode(SH / H / L)	dB(A)	59.0 / 54.0 / 48.0
	Bypass Mode (SH / H / L)	dB(A)	-
Electrical Characteristic	Fan Motor_Full Load Amperes (FLA)	A	2.2
	Maximum Fuse Amperes (MFA)	A	8.8
	Minimium Circuit Amperes (MCA)	A	2.8
Heat Exchanger	Type	-	Air to air cross flow heat exchanger
Humidifier(DX Type)	Type	-	-
	Dehumidification Rate	kg/h	-
	Pressure Feed Water	MPa	-
	Number	EA	-
Dimensions	Net(W x H x D)	mm	1,062 x 365 x 1,240
	Shipping(W x H x D)	mm	1,333 x 450 x 1,451
Weight	Net	kg	54.4
	Shipping	kg	64.3
Refrigerant(DX Type)	Type	-	-
Piping Connection(DX Type)	Liquid	mm(inch)	-
	Gas	mm(inch)	-
	Water	mm(inch)	-
	Drain(O.D / I.D)	mm	-
Duct Work	Qty	EA	4
	Size	mm	250
Supply Air Fan	Type	-	Sirocco fan

1. Specifications

Category		Unit	Specification
Major	Minor		
Supply Air Fan	Qty	EA	1
Exhaust Air Fan	Type	-	Sirocco fan
	Qty	EA	1
Filters	Type	-	OA : Pre, SA : F7, RA : M5
	Quantity	EA	F7 : 2ea, M5 : 2ea, Pre : 1ea
	Dimensions(W x H x D)	mm	Pre:1,156 x 6 x 212.5 / M5F7:578 x 21 x 213
Operation Range	Outdoor Air Temperature / Relative Humidity	℃ / %RH	-10~40 / 20~80

Note

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   - Heating : Indoor Ambient Temp. 20.5°CDB / 59.5%RH, Outdoor Ambient Temp. 5°CDB / 65%RH
5. M5 - ISO ePM10 80% Filter / F7 - ISO ePM10 85% Filter

1. Specifications

ZE100GUCDA0

Category		Unit	Specification
Major	Minor		
Classification	Chassis	-	ZC10
Nominal Capacity	-	m³/h	1,000
		ft³/min	589
Power Supply	Case 1	V, Phase, Hz	220-230-240, 1, 50/60
	Case 2	V, Phase, Hz	-
	Limit Range of Voltage(Case 1)	V	198 - 264
	Limit Range of Voltage(Case 2)	V	-
	Running Current by Voltage	A	3.0
Fresh Air Conditioning Load(DX Type)	Cooling	kW	-
	Heating	kW	-
Exterior	Material	-	Galvanized steel plate
Energy Exchange Mode	Step	-	SH / H / L
	Running Current(SH / H / L)	A	3.0 / 1.9 / 1.0
	Power Input(SH / H / L)	W	475 / 280 / 140
	Air Flow Rate(SH / H / L)	m³/h	1,000 / 800 / 600
	External Static Pressure(SH / H / L)	Pa(mmAq)	160 / 102 / 57
	Temperature Exchange Efficiency (SH / H / L)	%	74 / 75 / 77
	Temperature Exchange Efficiency(Heating)(ErP)	%	73
	Temperature Exchange Efficiency(Heating)(JIS)	%	74 / 75 / 77
	Enthalpy Exchange Efficiency Cooling (SH / H / L)	%	63 / 67 / 71
	Enthalpy Exchange Efficiency Heating (SH / H / L)	%	72 / 73 / 74
Bypass Mode	Step	-	-
	Running Current(SH / H / L)	A	-
	Power Input(SH / H / L)	W	-
	Air Flow Rate(SH / H / L)	m³/h	-
	External Static Pressure(SH / H / L)	Pa(mmAq)	-
Sound Pressure Level	Energy Exchange Mode(SH / H / L)	dB(A)	40.0 / 36.0 / 29.0
	Bypass Mode (SH / H / L)	dB(A)	-
Sound Power Level	Energy Exchange Mode(SH / H / L)	dB(A)	62.0 / 56.0 / 52.0
	Bypass Mode (SH / H / L)	dB(A)	-
Electrical Characteristic	Fan Motor_Full Load Amperes (FLA)	A	3
	Maximum Fuse Amperes (MFA)	A	12
	Minimium Circuit Amperes (MCA)	A	3.8
Heat Exchanger	Type	-	Air to air cross flow heat exchanger
Humidifier(DX Type)	Type	-	-
	Dehumidification Rate	kg/h	-
	Pressure Feed Water	MPa	-
	Number	EA	-
Dimensions	Net(W x H x D)	mm	1,062 x 365 x 1,240
	Shipping(W x H x D)	mm	1,333 x 450 x 1,451
Weight	Net	kg	54.4
	Shipping	kg	64.3
Refrigerant(DX Type)	Type	-	-
Piping Connection(DX Type)	Liquid	mm(inch)	-
	Gas	mm(inch)	-
	Water	mm(inch)	-
	Drain(O.D / I.D)	mm	-
Duct Work	Qty	EA	4
	Size	mm	250
Supply Air Fan	Type	-	Sirocco fan

1. Specifications

Category		Unit	Specification
Major	Minor		
Supply Air Fan	Qty	EA	1
Exhaust Air Fan	Type	-	Sirocco fan
	Qty	EA	1
Filters	Type	-	OA : Pre, SA: F7, RA : M5
	Quantity	EA	F7 : 2ea, M5 : 2ea, Pre : 1ea
	Dimensions(W x H x D)	mm	Pre:1,156 x 6 x 212.5 / M5F7:578 x 21 x 213
Operation Range	Outdoor Air Temperature / Relative Humidity	℃ / %RH	-10~40 / 20~80

Note

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   - Heating : Indoor Ambient Temp. 20.5°CDB / 59.5%RH, Outdoor Ambient Temp. 5°CDB / 65%RH
5. M5 - ISO ePM10 80% Filter / F7 - ISO ePM10 85% Filter

2. List of Functions

ZE050GUCCA0, ZE080GUCDA0, ZE100GUCDA0

Category	Functions	Availability
Air Flow	Airflow steps by Ventilation Mode (Heat Exchange/Bypass/Auto)	3 / 3 / 3
	Bypass Operation	O
	Heat Exchange Mode	O
	Seasonal Auto Operation	O
Air Purification	Pre-Filter	O
	UVnano	X
	Fine Dust Filter	O
	Humidification	X
Reliability	Self Diagnosis	O
Interlocking air conditioner	Delayed Operation (Delay time setting function)	O
	Night Time Free Cooling	O
	Auto operation mode interlocking air conditioner	O
	Fast cleaning indoor air operation	O
	Interlock operation during IDU defrost	O
	Air conditioner and ventilator control by single wired remote controller	O
Convenience	CO_2 Fan control	O
	CO_2 level display (Remote controller)	O
	CO_2 level monitoring (Central controller)	O
	Fine dust level display (Outdoor/Indoor)	X
	Fast Ventilation	O
	Filter Check Alarm	O
	Energy saving ventilation operation	O
	Auto Restart	O
	Child Lock	O
	Forced Operation	O
	Group Control	O
	Sleep Timer	O
	Turn On/Off Reservation	O
	Schedule	O
Installation	E.S.P Setting	O
	Test Function	O
	OA,EA Motorizes Damper Control	O
	Change Outdoor Air / Return Air Side	X
Special Functions	Wi-Fi Control	Accessory
	Central Control(LGAP)	Accessory

Note

■ O : Applied, X : Not applied
- Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
- Accessory line-ups varies by region, so check your local catalogue or local sales material.

■ Some functions can be limited by remote controller.

3. Accessory Compatibility List

ZE050GUCCA0, ZE080GUCDA0, ZE100GUCDA0

Category	Accessory Name	Model Name	Description	Compatibility
Central Controller	AC EZ	PQCSZ250S0	-	O
	AC EZ touch	PACEZA000	Touch type	O
	AC Smart 5	PACS5A000	Touch type	O
	ACP 5	PACP5A000	-	O
	AC Manager 5	PACM5A000	For Integrated Control	O
Remote Controller	Wired - Premium	PREMTA000	-	O
		PREMTA000A	-	O
		PREMTA000B	-	O
	Wired - Deluxe	PREMTA201	-	O
	Wired - RS3 (Standard III)	PREMTB100/PREMTB101	White	O
		PREMTBB10/PREMTBB11	Black	O
	Wired - RS2 (Standard II)	PREMTB001	White	O
		PREMTBB01	Black	O
Dry Contact	Simple	PDRYCB000	1 input port, AC 220 - 240V	O
		PDRYCB100	1 input port, AC 24V	O
	Communication	PDRYCB500	For 3rd Party Controller(Modbus RTU)	O
		PDRYCB510	for Modbus	X
Gateway	IDU PI485	PHNFP14A0	Without Case	X
		PSNFP14A0	With Case	O
		PNF-P14A0C	Without Case(domestic)	X
		PNF-P14A0R	With Case(domestic)	X
	Modbus RTU Gateway	PMBUSB00A	To interwork with 3rd Party Controller or BMS for Multi V / ERV (DX) / AWHP / Hydrokit	O
Integration Device	Group Control wire	PZCWRCG3	Cable Assembly for group control (Y-type cable : 0.25m, cable : 9.6m)	O
ETC	CO2 Sensor	AHCS100H0	For ERV, ERV DX	O (Embedded)
	Extension wire	PZCWRC1	Extension wire for IDU-wired remote controller (9.6m)	O
	Wi-Fi Modem	PWFMDD200	Device to use ThinQ app include connection cable	O
	Independent Power Module	PRIP0	For Multi V Indoor Unit	X
	Refrigerant Leakage Detector	PRLDNVS0	For Multi V Indoor Unit (R410A)	X
Special Kit	Fine Dust Filter	AHFT100H1	For 800, 1000,1500, 2000 CMH (ISO ePM1 75%, for 5 Series)	X
		AHFT035H0	For 250 CMH (F7 Filter, for 4 Series)	X
		AHFT050H0	For 350, 500 CMH (F7 Filter, for 4 Series)	X
		AHFT100H0	-	X
		AFT100AEM50	For 800/1000 CMH (ISO ePM10 80% (M5))	O
		AFT050AEM50	For 500 CMH (ISO ePM10 80% (M5))	O
		AFT100AEF70	For 800/1000 CMH (ISO ePM10 85% (F7))	O
		AFT050AEF70	For 500 CMH (ISO ePM10 85% (F7))	O
		AFT050AEF90	For 500 CMH ((ISO ePM1 95% (F9))	O
		AFT100AEF90	For 800/1000 CMH ((ISO ePM1 95% (F9))	O

Note

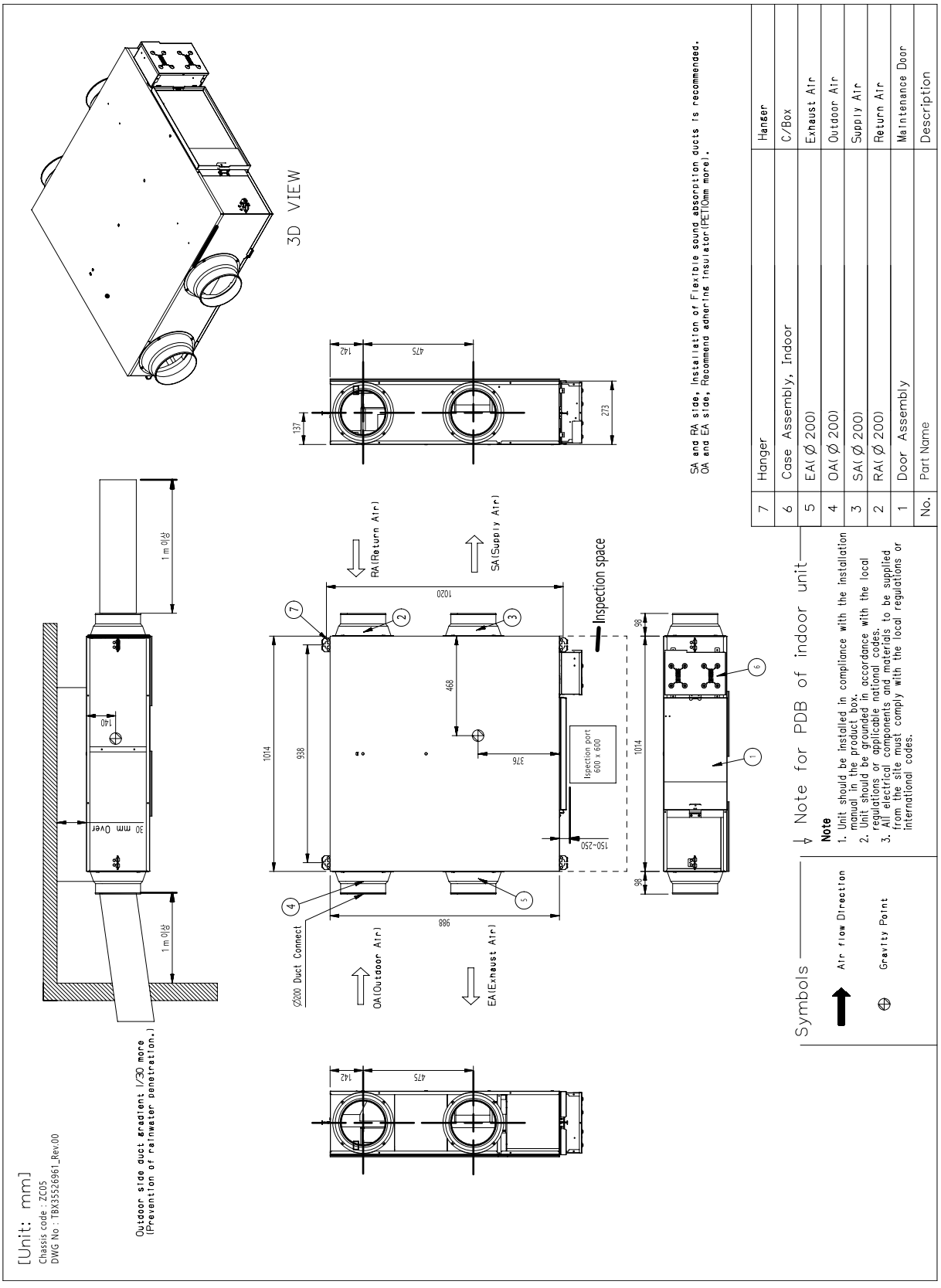
■ O: Possible, X: Impossible, Embedded: Included with product.

■ If you need more detail, please refer to the Control(BECON) PDB or the manual of product.
(http://partner.lge.com > Select Your Region : Home> Doc.Library> Product > Control(BECON))

4. Dimensions

4.1 Dimensional Drawing

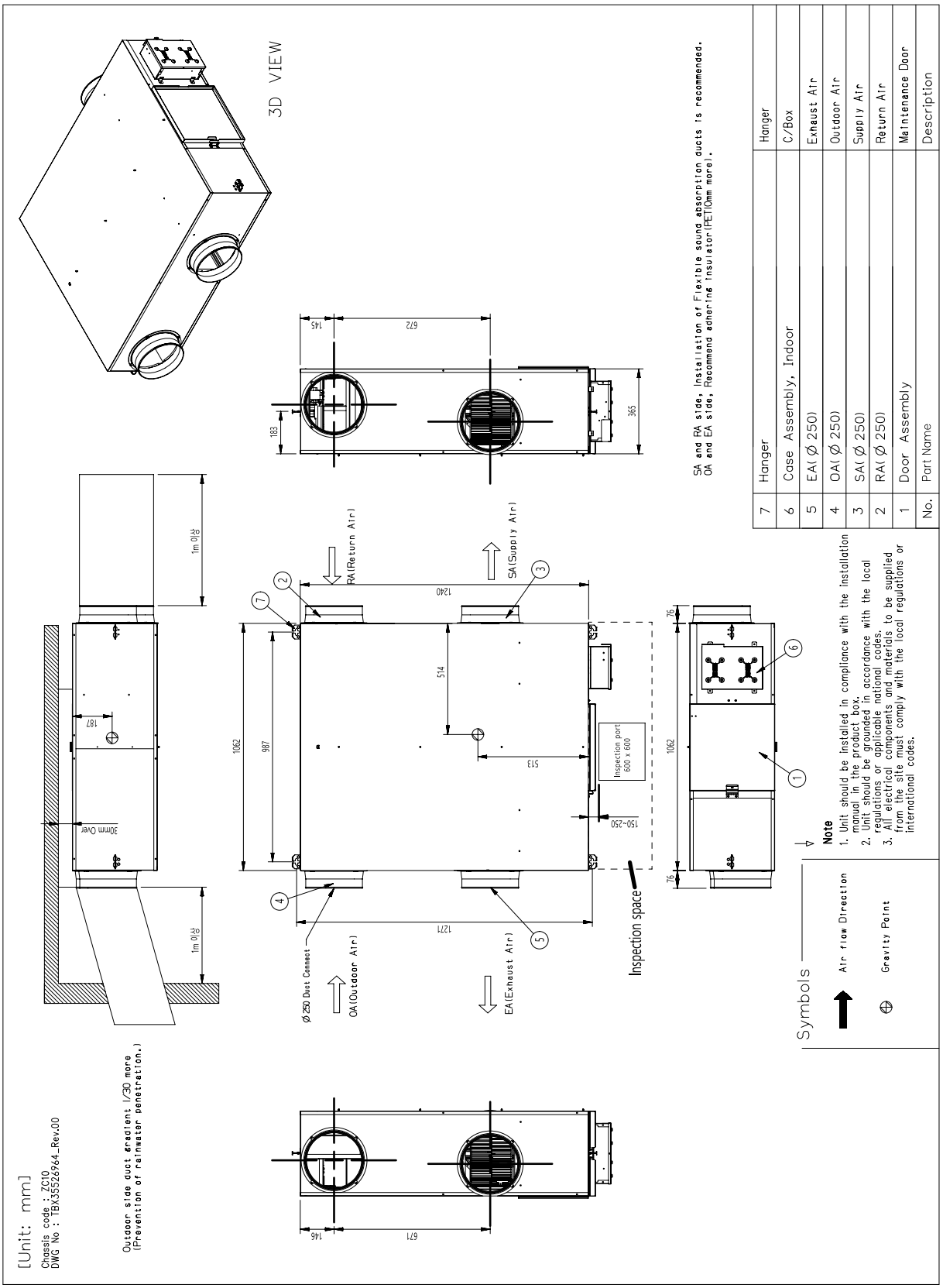
ZE050GUCCA0



No.	Part Name	Description
1	Door Assembly	Maintenance Door
2	RA(Ø 200)	Return Air
3	SA(Ø 200)	Supply Air
4	OA(Ø 200)	Outdoor Air
5	EA(Ø 200)	Exhaust Air
6	Case Assembly, Indoor	C/Box
7	Hanger	Hanger

4. Dimensions

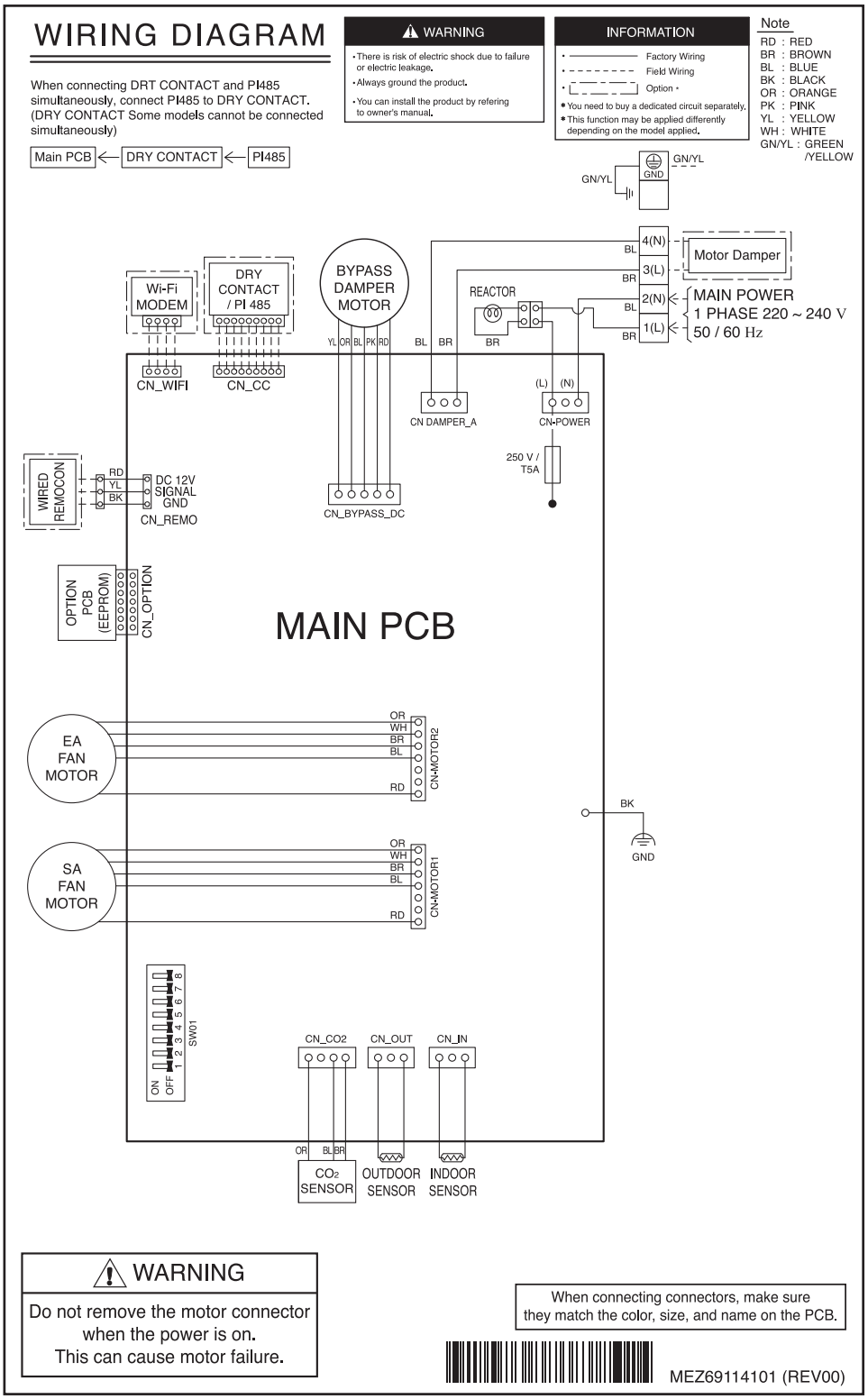
ZE080GUCDA0, ZE100GUCDA0



5. Wiring Diagrams

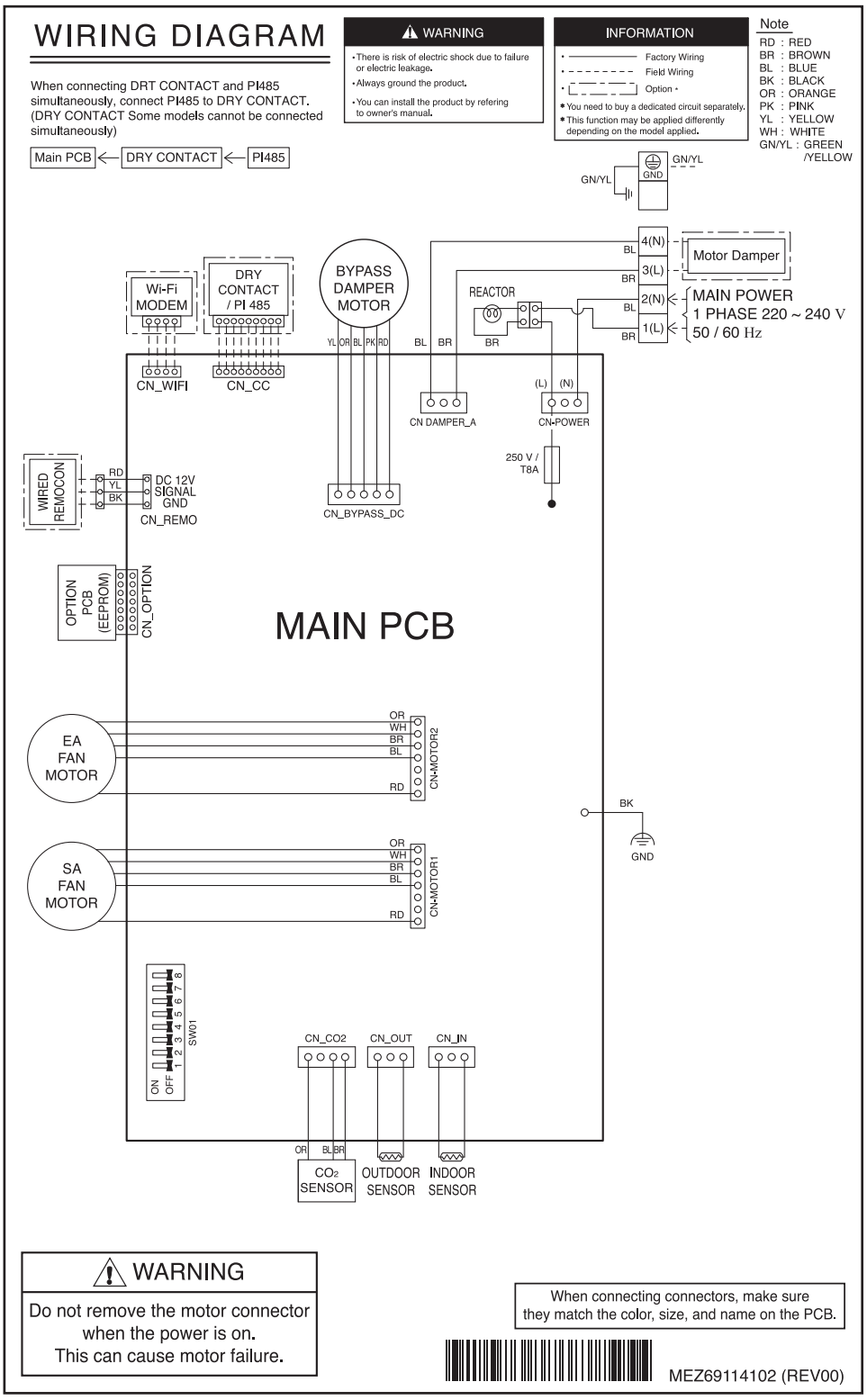
5.1 Product

ZE050GUCCA0



5. Wiring Diagrams

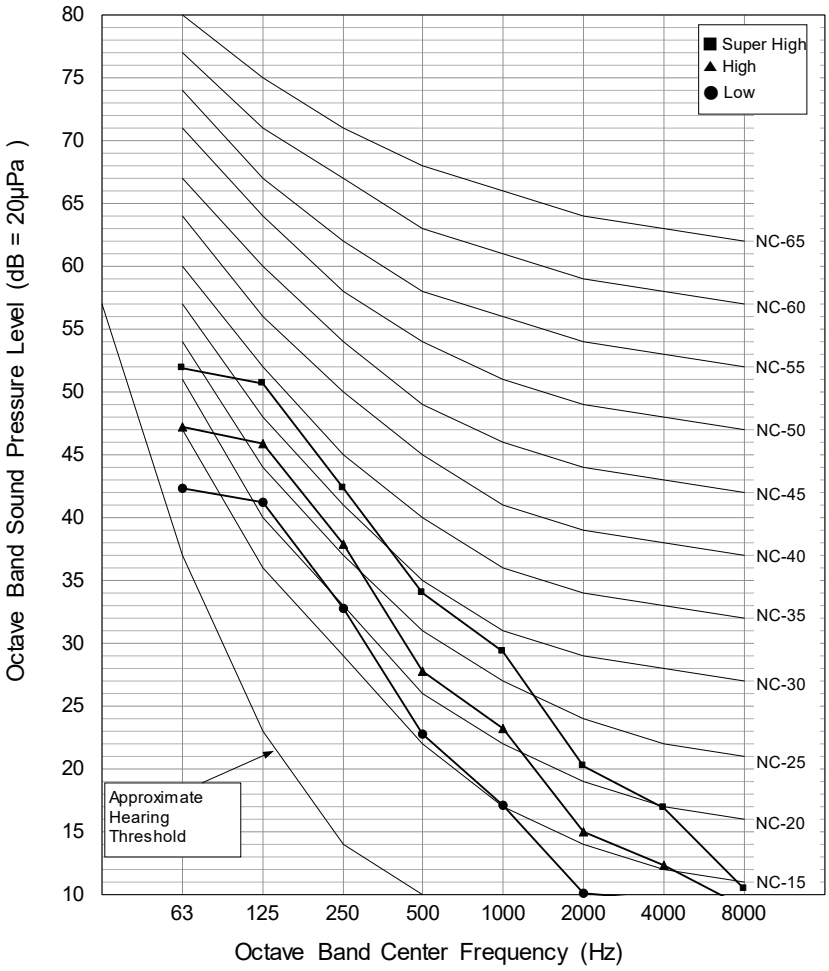
ZE080GUCDA0, ZE100GUCDA0



6. Sound Levels

6.1 Pressure Levels

ZE050GUCCA0

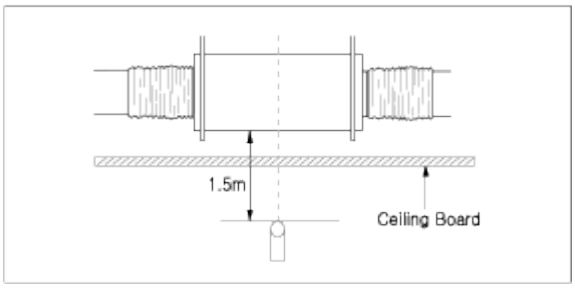


Sound level [dB(A), @ Standard condition]	
Energy Exchange Mode(SH / H / L)	39.0 / 34.0 / 29.0
Bypass Mode (SH / H / L)	-

Note

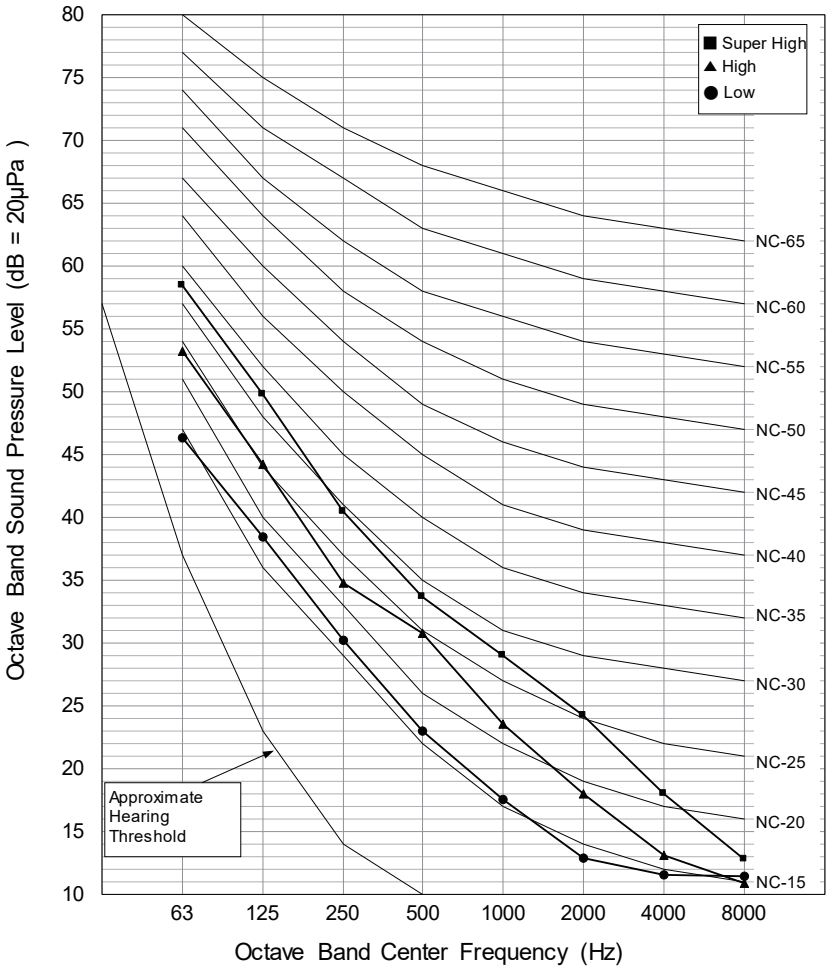
- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound levels will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.

< Measurement scene >



6. Sound Levels

ZE080GUCDA0



Sound level [dB(A), @ Standard condition]	
Energy Exchange Mode(SH / H / L)	39.0 / 34.0 / 28.0
Bypass Mode (SH / H / L)	-

Note

- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound levels will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.

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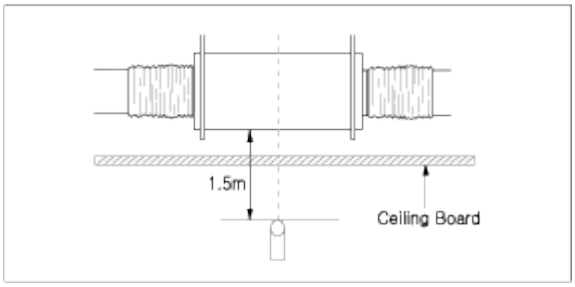
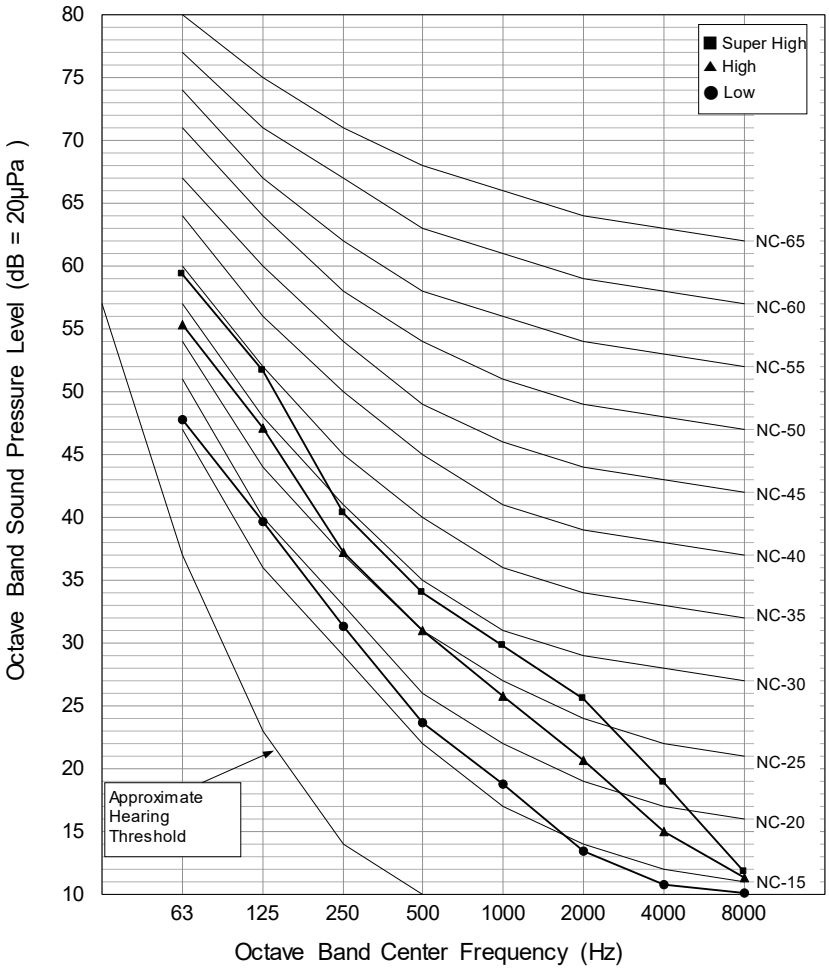


6. Sound Levels

ZE100GUCDA0

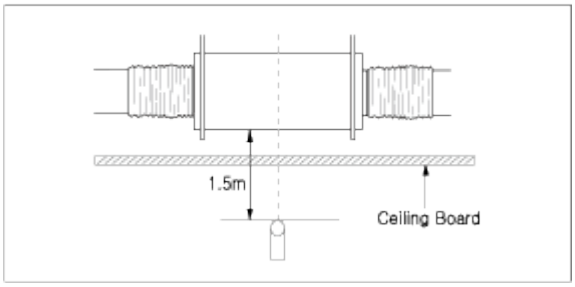


Sound level [dB(A), @ Standard condition]	
Energy Exchange Mode(SH / H / L)	40.0 / 36.0 / 29.0
Bypass Mode (SH / H / L)	-

Note

- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound levels will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.

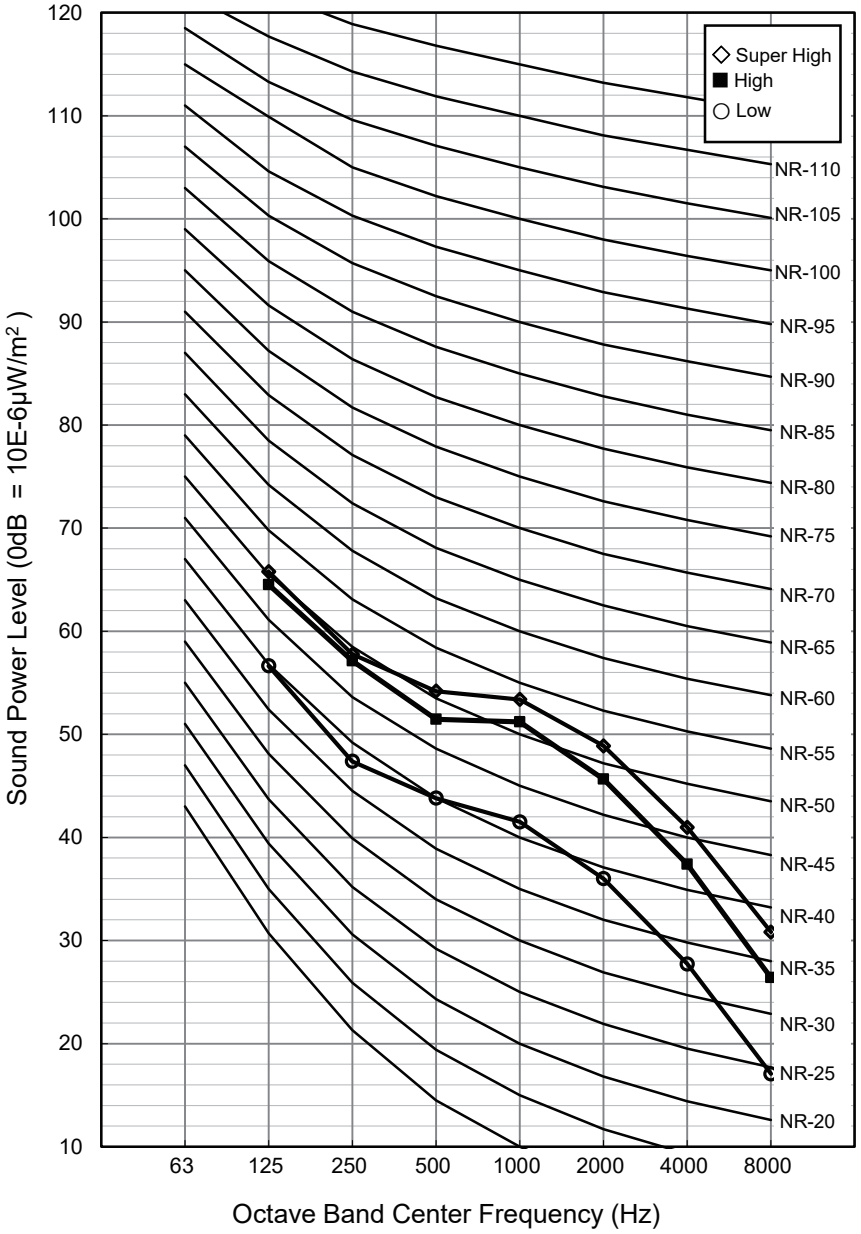
< Measurement scene >



6. Sound Levels

6.2 Power Levels

ZE050GUCCA0



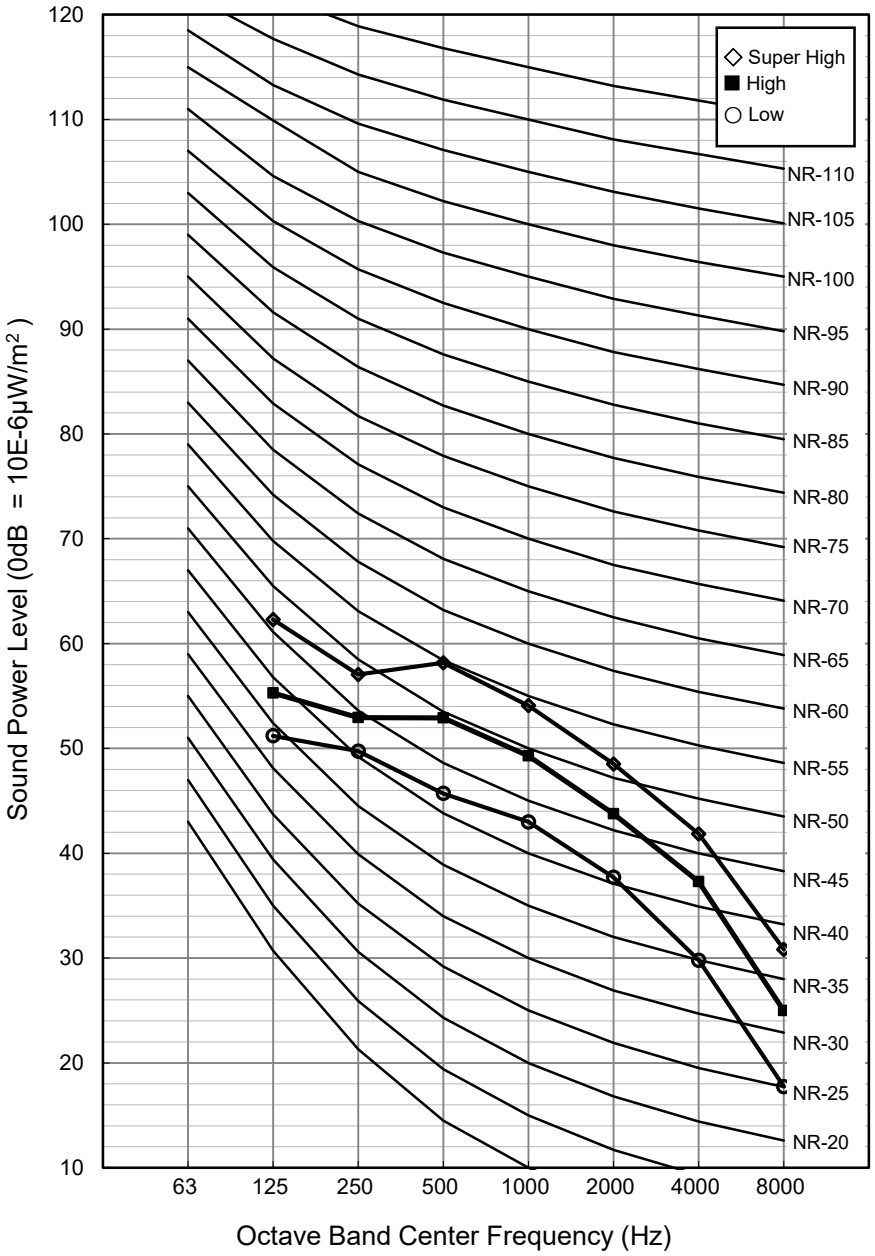
Sound level [dB(A), @ Standard condition]	
Energy Exchange Mode(SH / H / L)	58.0 / 56.0 / 47.0
Bypass Mode (SH / H / L)	-

Note

■ Data is valid at diffuse field condition.
■ Data is valid at nominal operating condition
■ Sound level can be increased in static pressure mode or used air guide.
■ Sound power level is measured on the rated condition in the reverberation rooms.
■ Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
■ Reference acoustic intensity 0dB = 10E-6μW/m2
■ Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

6. Sound Levels

ZE080GUCDA0



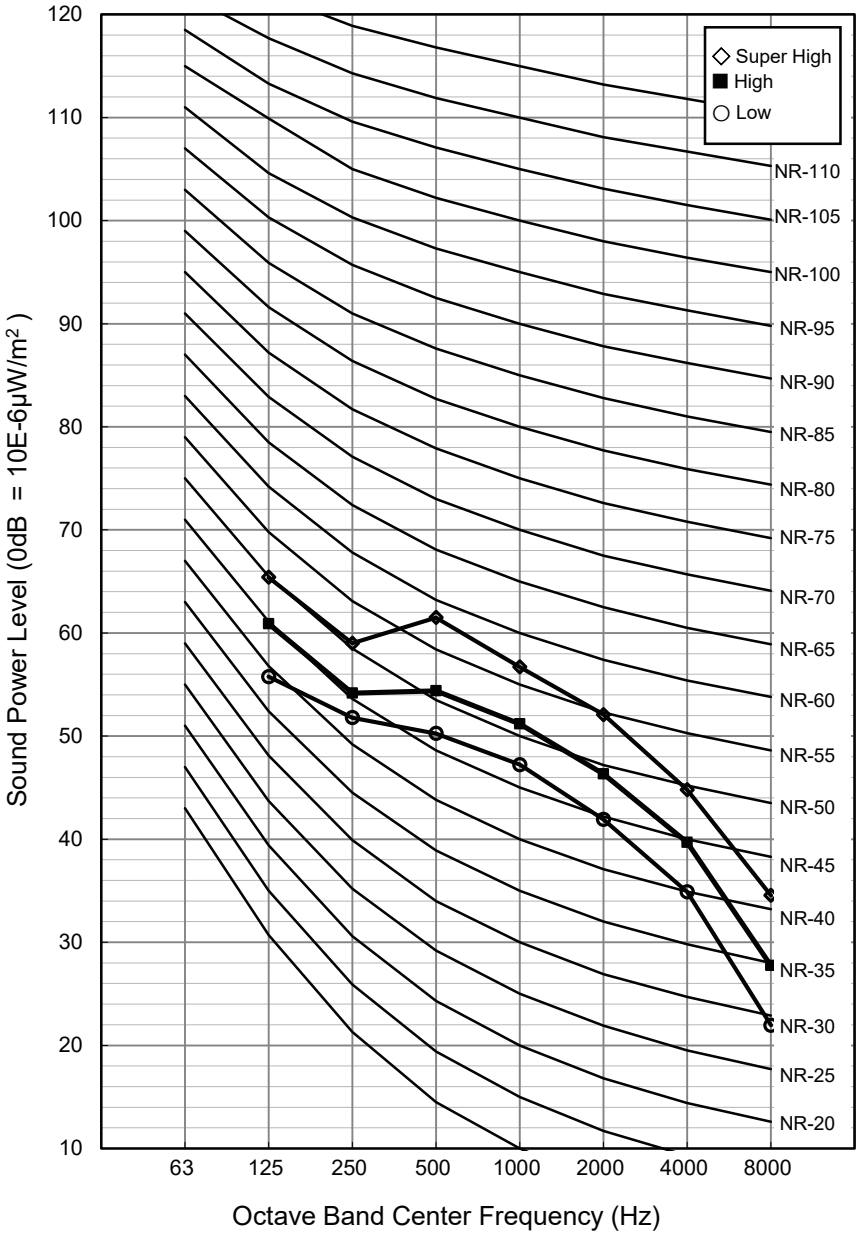
Sound level [dB(A), @ Standard condition]	
Energy Exchange Mode(SH / H / L)	59.0 / 54.0 / 48.0
Bypass Mode (SH / H / L)	-

Note

■ Data is valid at diffuse field condition.
■ Data is valid at nominal operating condition
■ Sound level can be increased in static pressure mode or used air guide.
■ Sound power level is measured on the rated condition in the reverberation rooms.
■ Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
■ Reference acoustic intensity 0dB = 10E-6μW/m2
■ Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
Therefore, these values can be increased owing to ambient conditions during operation.

6. Sound Levels

ZE100GUCDA0



Sound level [dB(A), @ Standard condition]	
Energy Exchange Mode(SH / H / L)	62.0 / 56.0 / 52.0
Bypass Mode (SH / H / L)	-

Note

■ Data is valid at diffuse field condition.
■ Data is valid at nominal operating condition
■ Sound level can be increased in static pressure mode or used air guide.
■ Sound power level is measured on the rated condition in the reverberation rooms.
■ Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
■ Reference acoustic intensity 0dB = 10E-6μW/m2
■ Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
Therefore, these values can be increased owing to ambient conditions during operation.

7. Fan Performance data

7.1 ESP Table

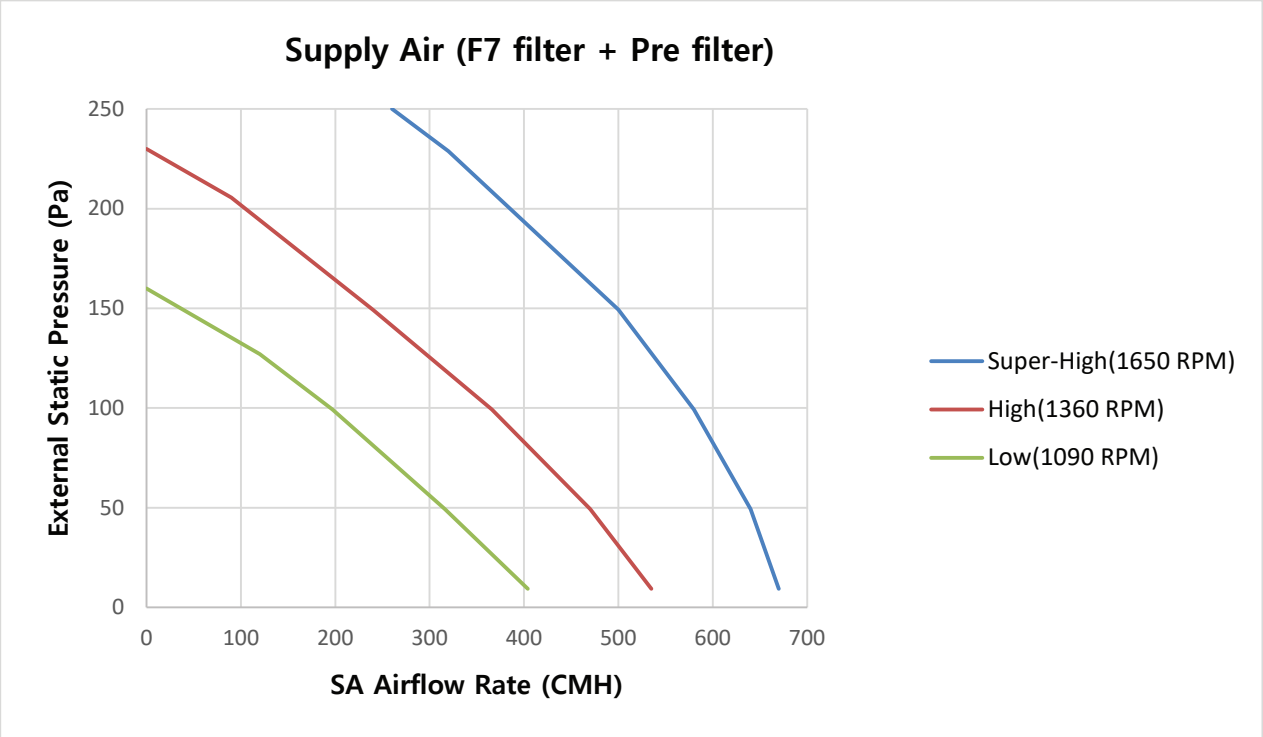
ZE050GUCCA0, ZE080GUCDA0, ZE100GUCDA0

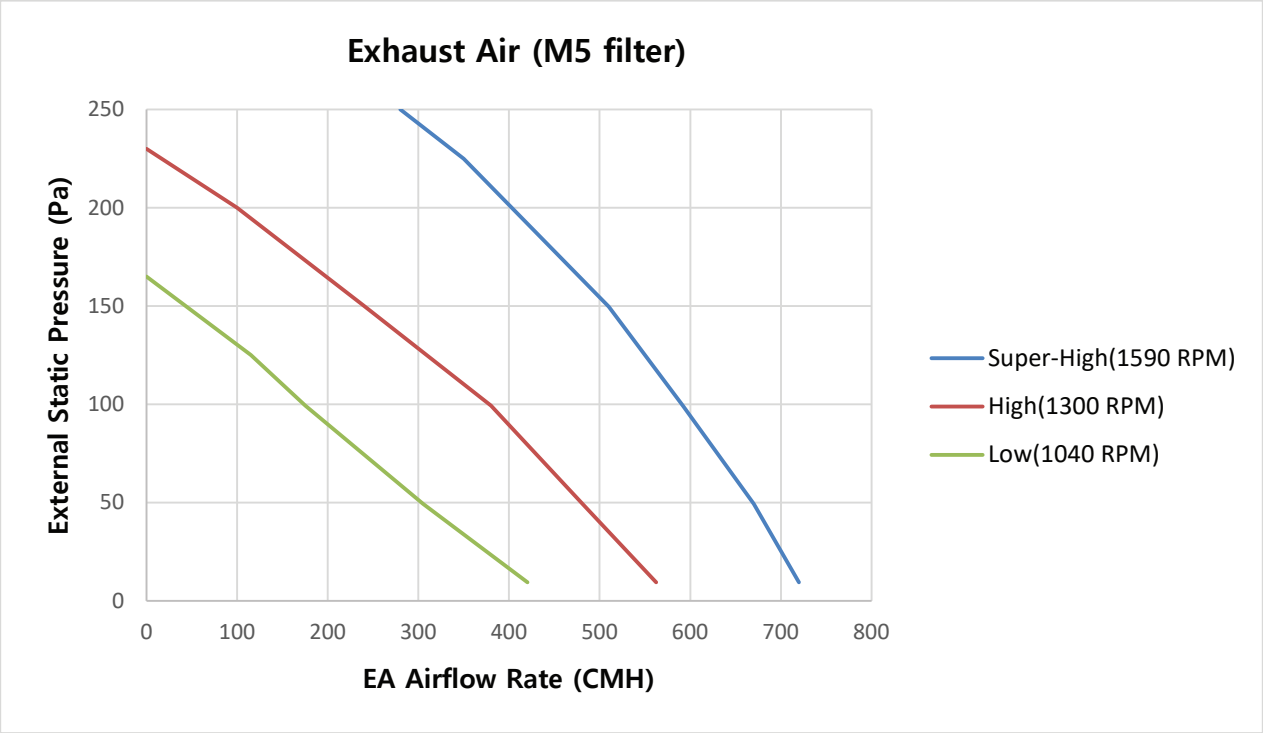
Model	Step	Air Flow [CMH]	External Static Pressure [Pa]															
			0		30		50		70		100		150		200		250	
			RPM															
			SA	EA	SA	EA	SA	EA	SA	EA	SA	EA	SA	EA	SA	EA	SA	EA
ZE050GUCCA0	Low	300	900	800	1,030	930	1,090	1,020	1,160	1,090	1,260	1,200	1,420	1,360	1,550	1,500	-	-
	High	400	1,090	970	1,190	1,090	1,250	1,150	1,320	1,230	1,400	1,320	1,530	1,470	1,640	1,600	-	-
	Super-High	500	1,300	1,140	1,380	1,240	1,430	1,310	1,490	1,380	1,550	1,440	1,680	1,600	-	-	-	-
ZE080GUCDA0	Low	480	650	550	750	650	820	720	870	800	980	900	1,090	1,040	1,200	1,160	1,310	1,280
	High	640	800	650	870	730	930	810	980	870	1,050	960	1,170	1,090	1,280	1,210	1,380	1,310
	Super-High	800	930	770	1,000	850	1,050	910	1,100	970	1,160	1,040	1,250	1,150	1,360	1,260	-	-
ZE100GUCDA0	Low	600	750	620	840	730	910	800	950	850	1,040	940	1,150	1,080	1,260	1,200	1,360	1,310
	High	800	930	770	1,000	850	1,050	910	1,100	970	1,160	1,040	1,250	1,150	1,360	1,260	-	-
	Super-High	1000	1,110	920	1,180	1,000	1,220	1,060	1,260	1,110	1,310	1,160	1,360	1,220	-	-	-	-

7. Fan Performance data

7.2 PQ Curve

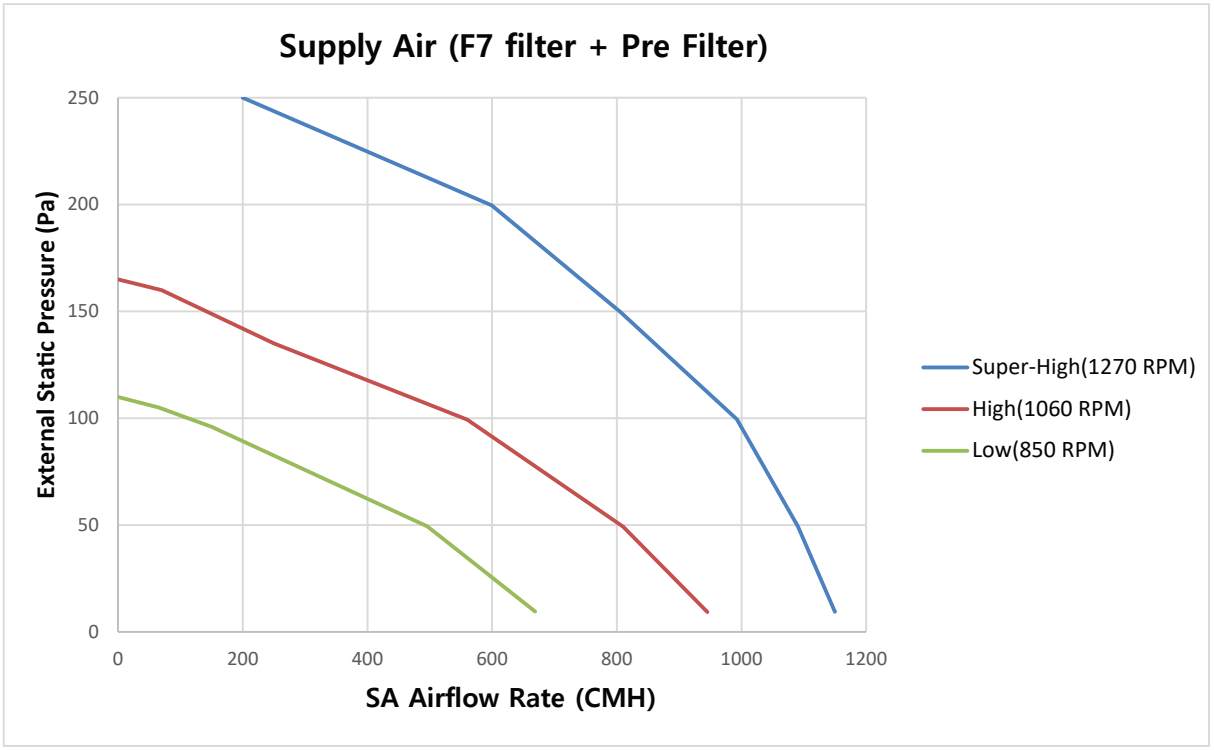
ZE050GUCCA0

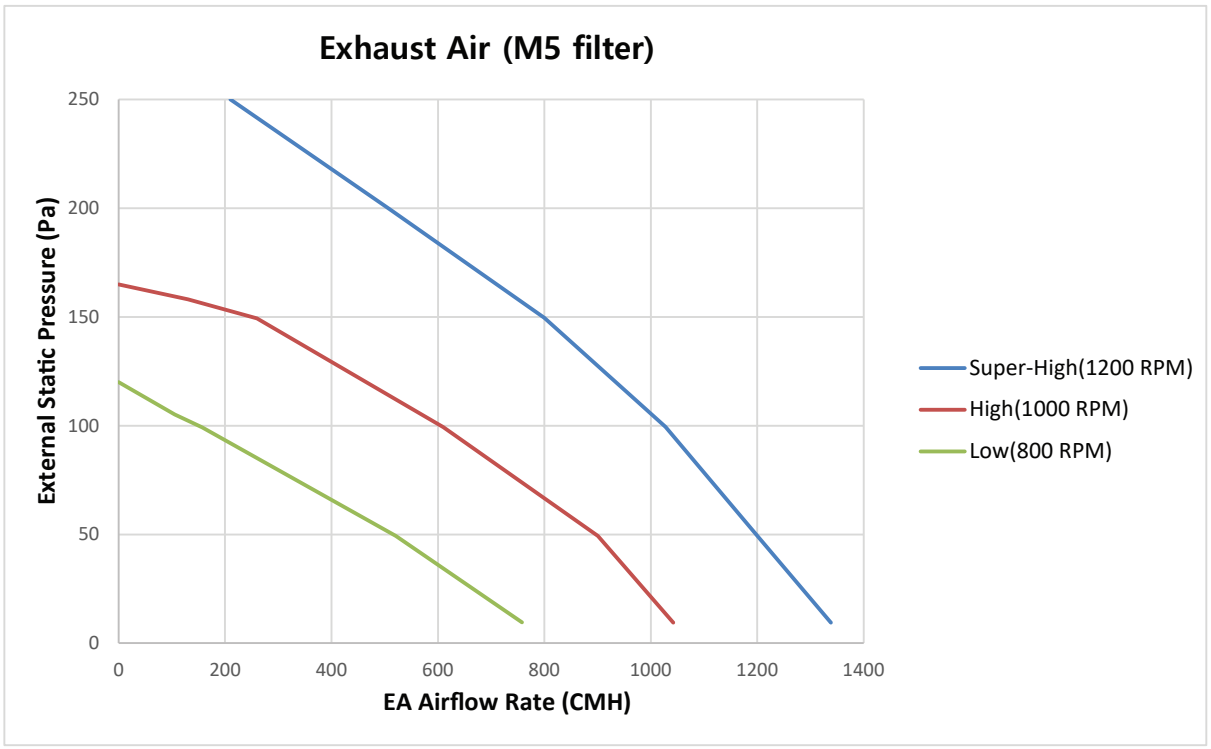




7. Fan Performance data

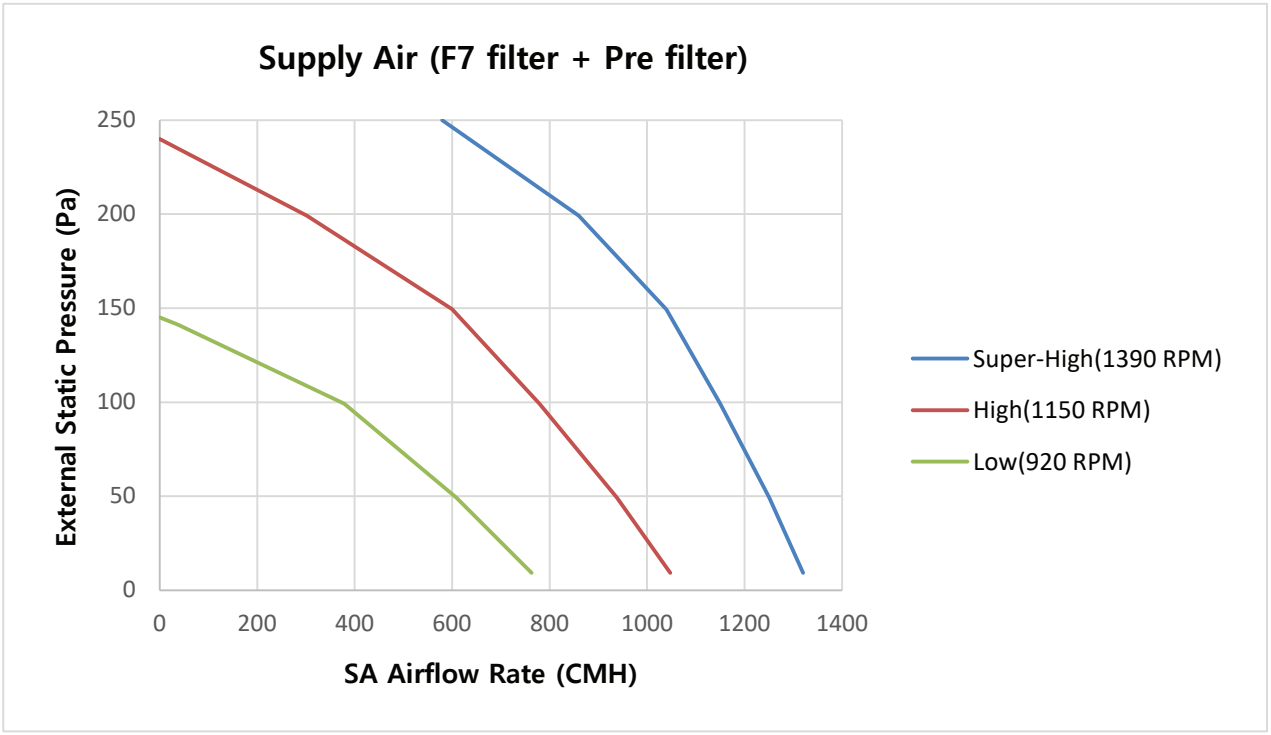
ZE080GUCDA0

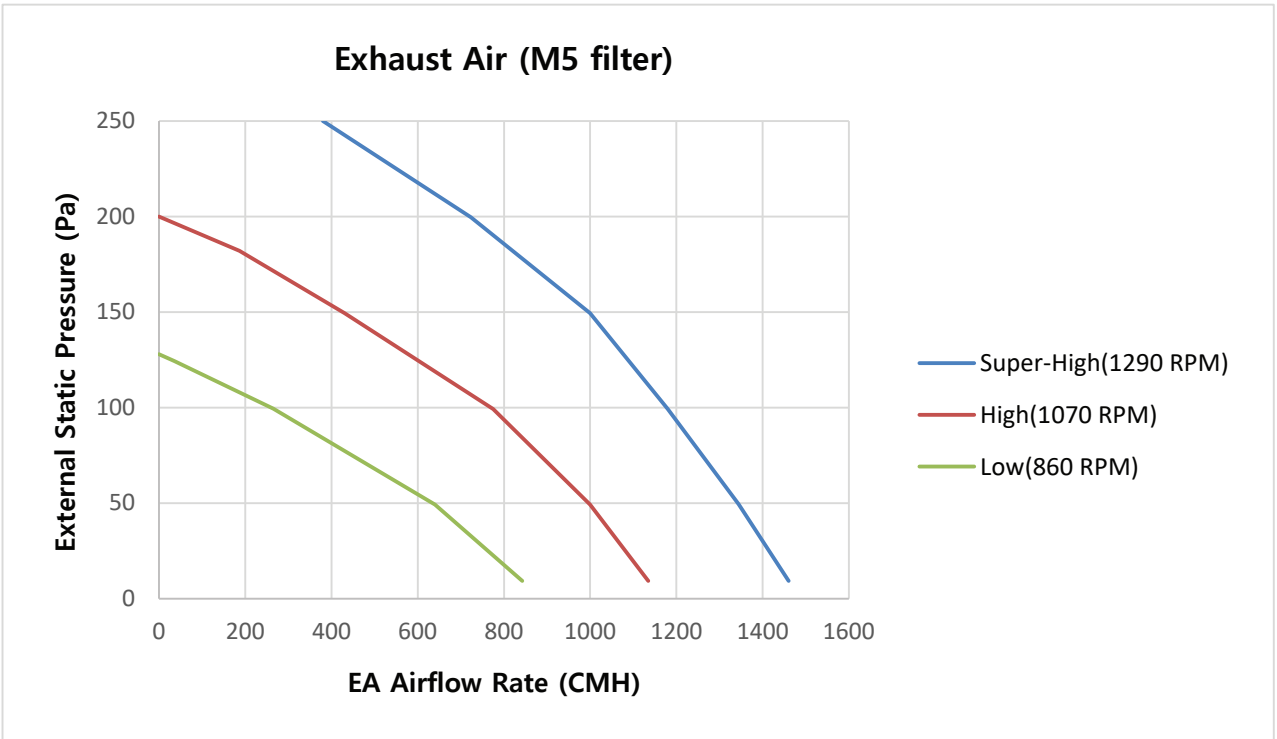




7. Fan Performance data

ZE100GUCDA0

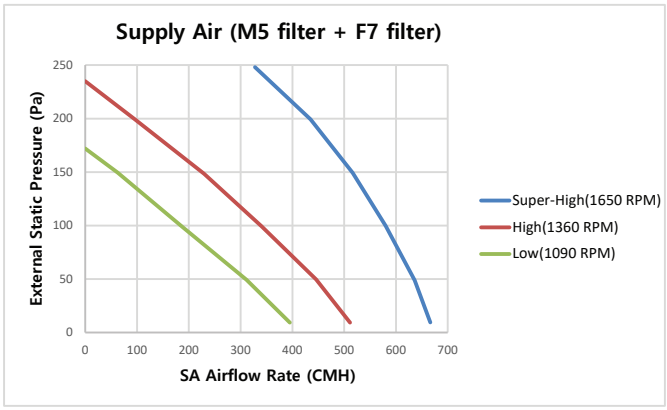


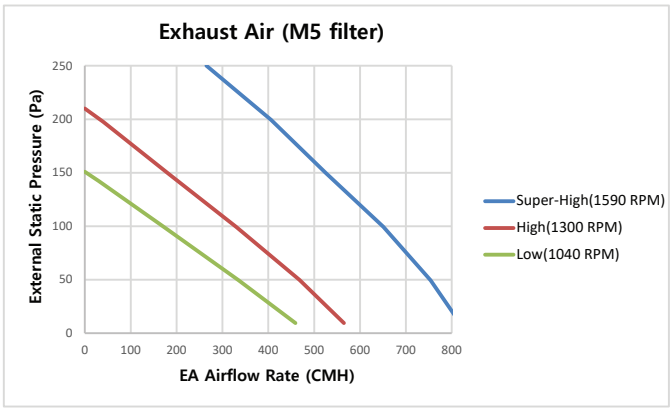


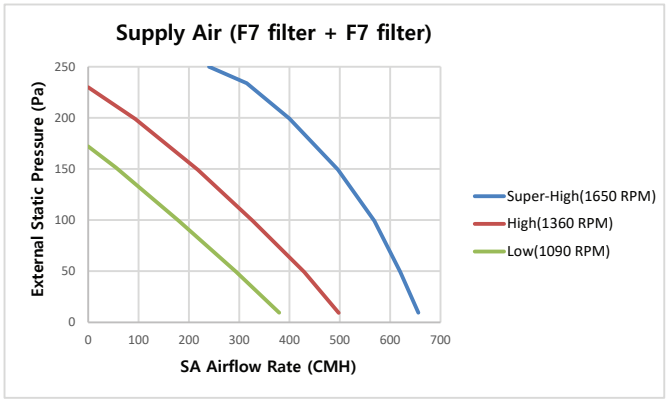
7. Fan Performance data

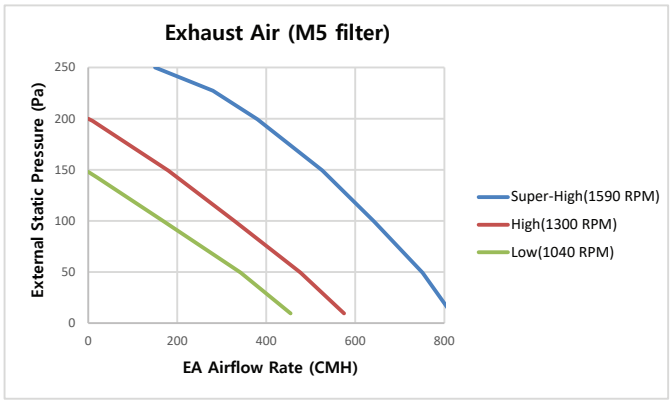
7.3 PQ curve with optional fine-dust-filters (F7, F9, M5)

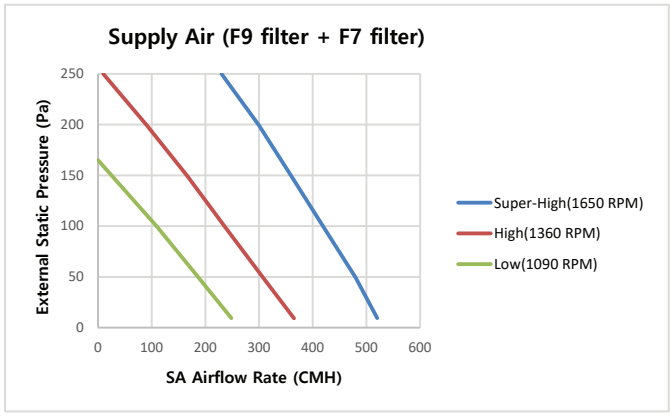
ZE050GUCCA0

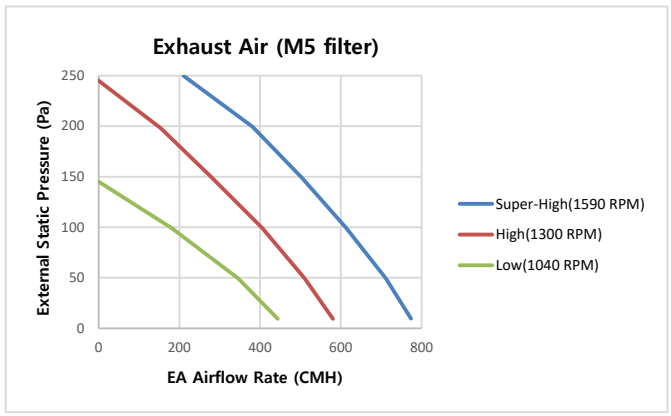






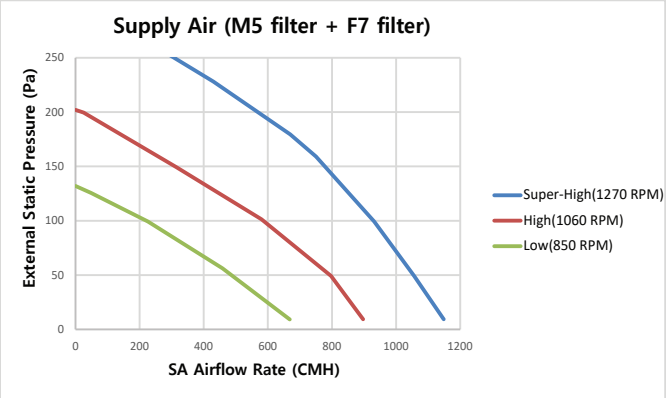


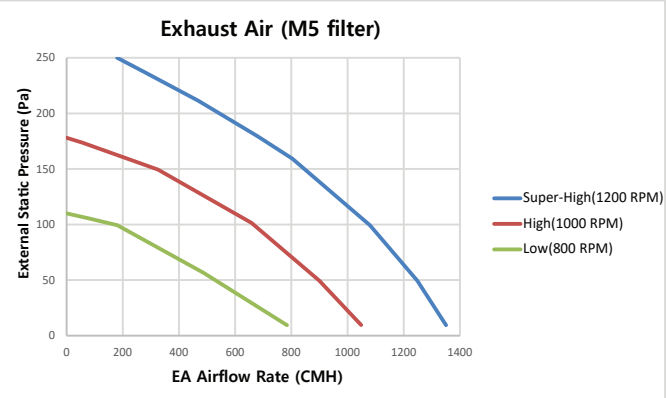


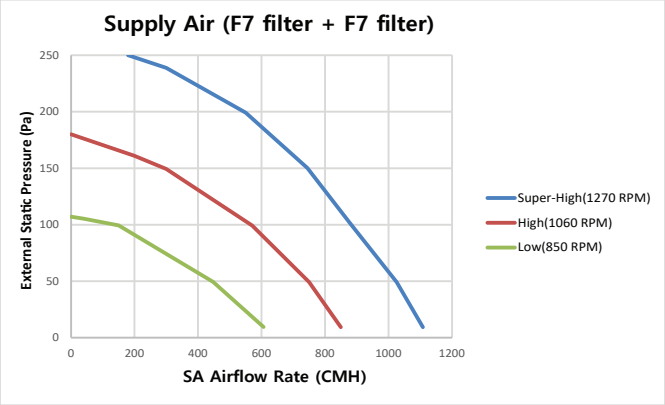


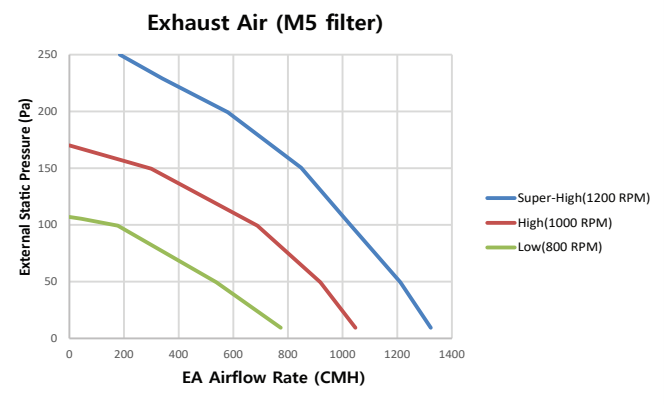
7. Fan Performance data

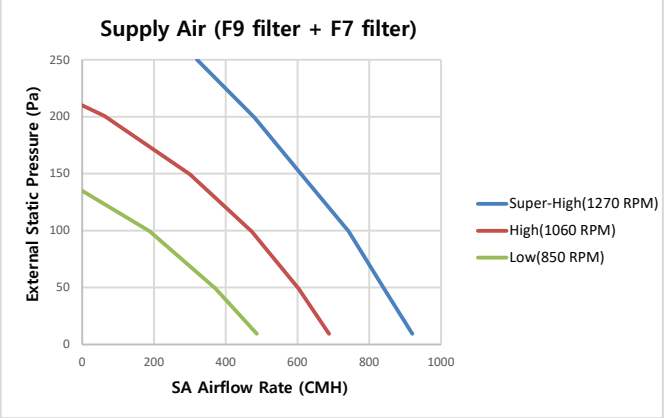
ZE080GUCDA0

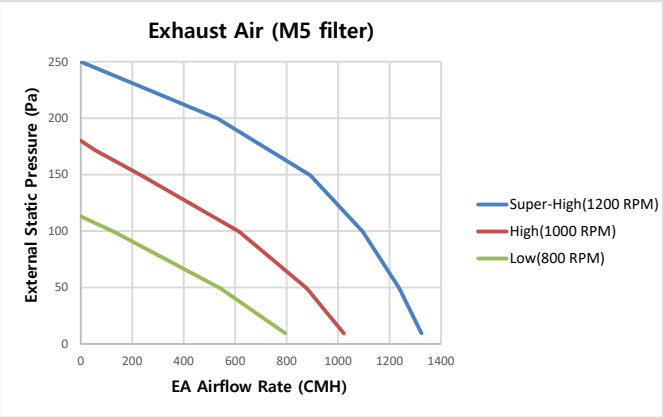






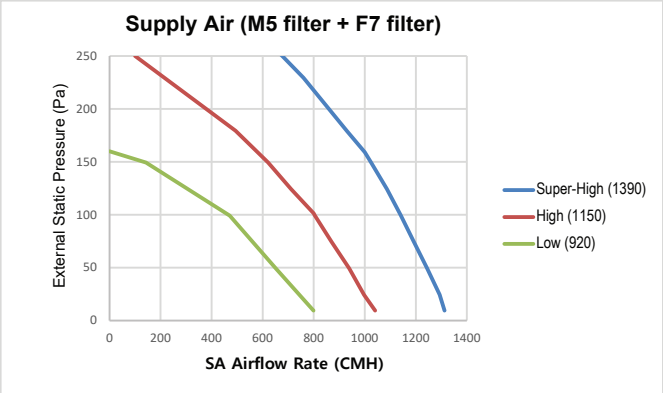


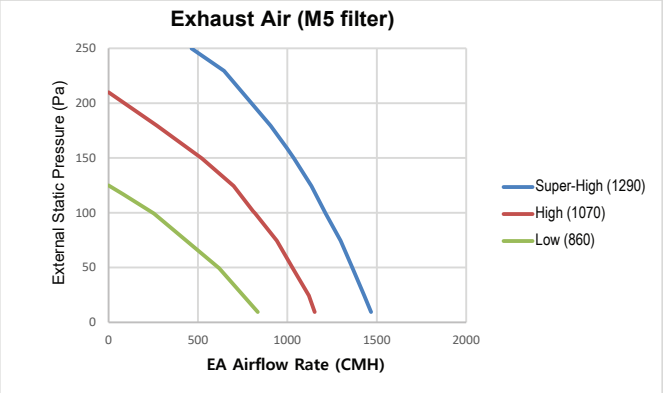


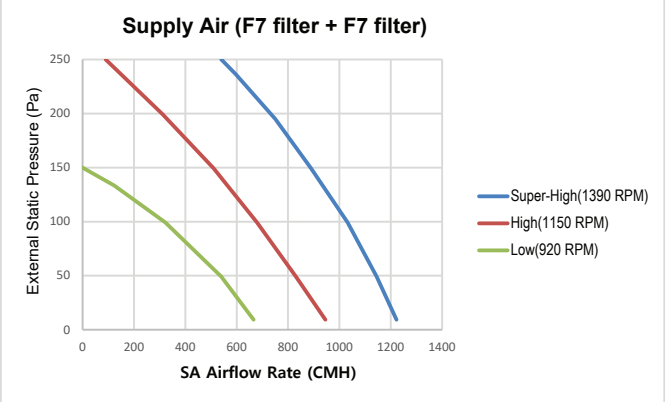


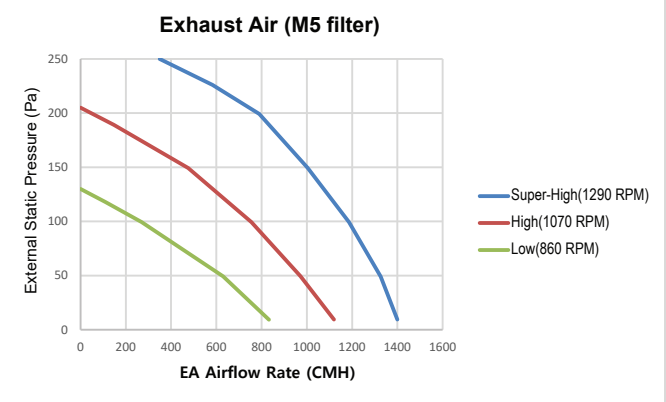
7. Fan Performance data

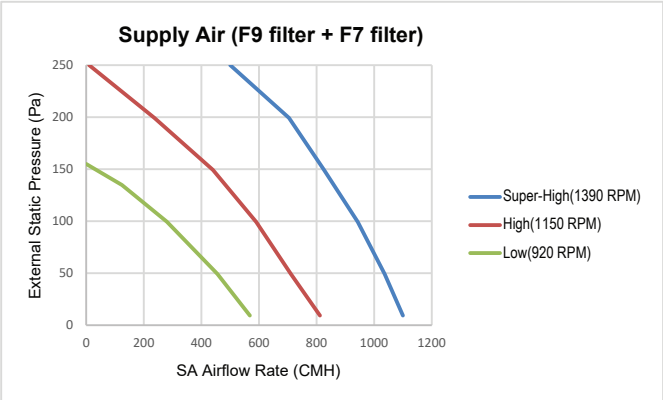
ZE100GUCDA0

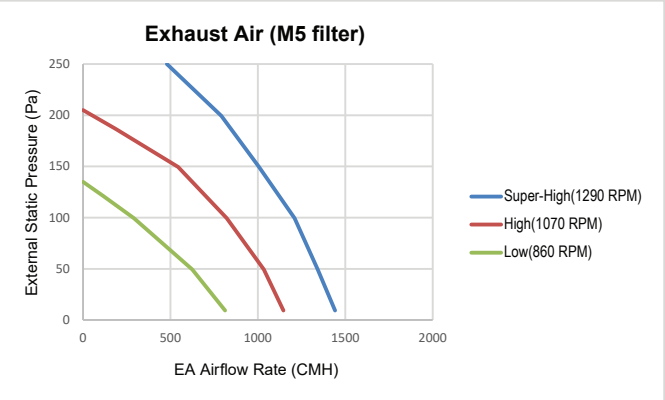








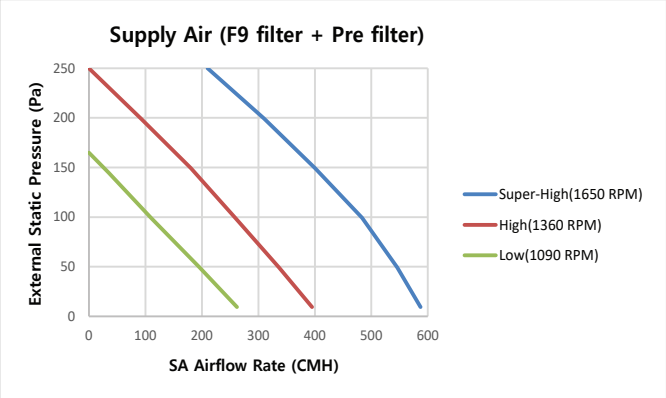


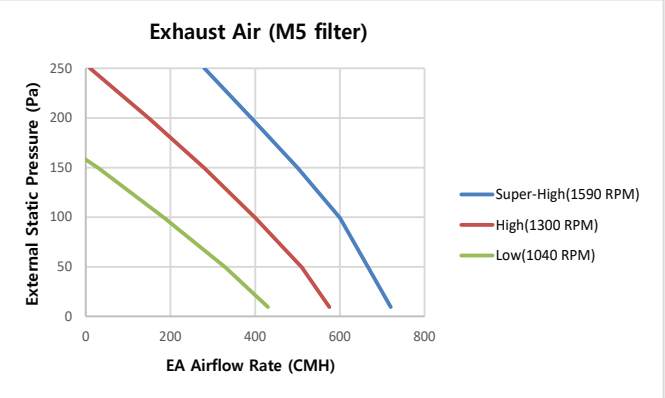


7. Fan Performance data

7.4 PQ curve with optional fine-dust-filters (F9, Pre)

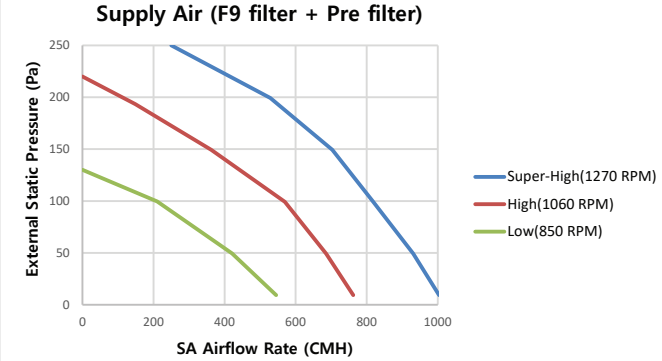
ZE050GUCCA0

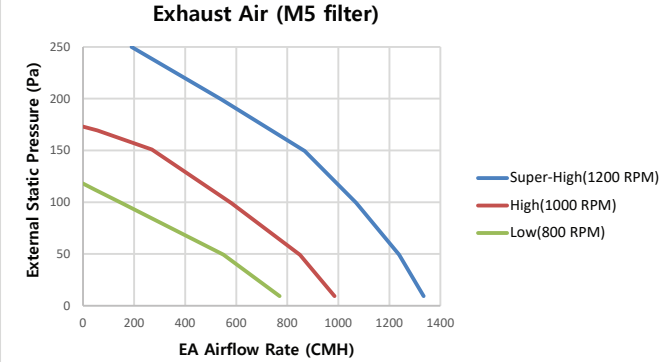




7. Fan Performance data

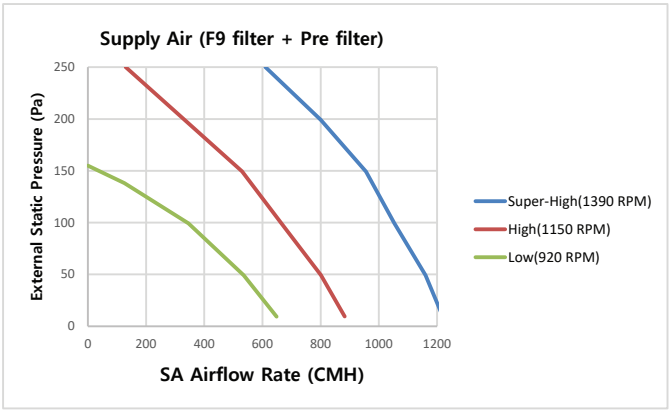
ZE080GUCDA0

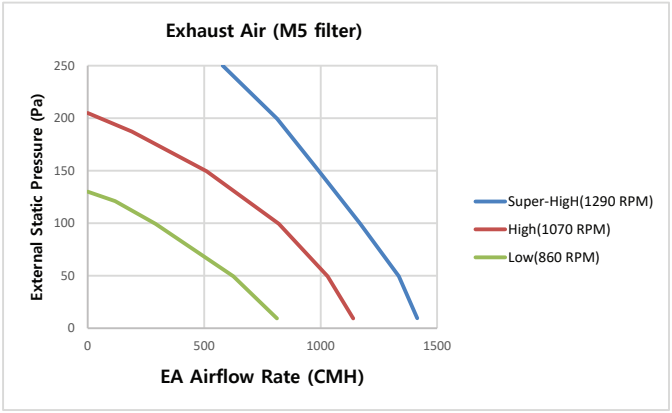




7. Fan Performance data

ZE100GUCDA0

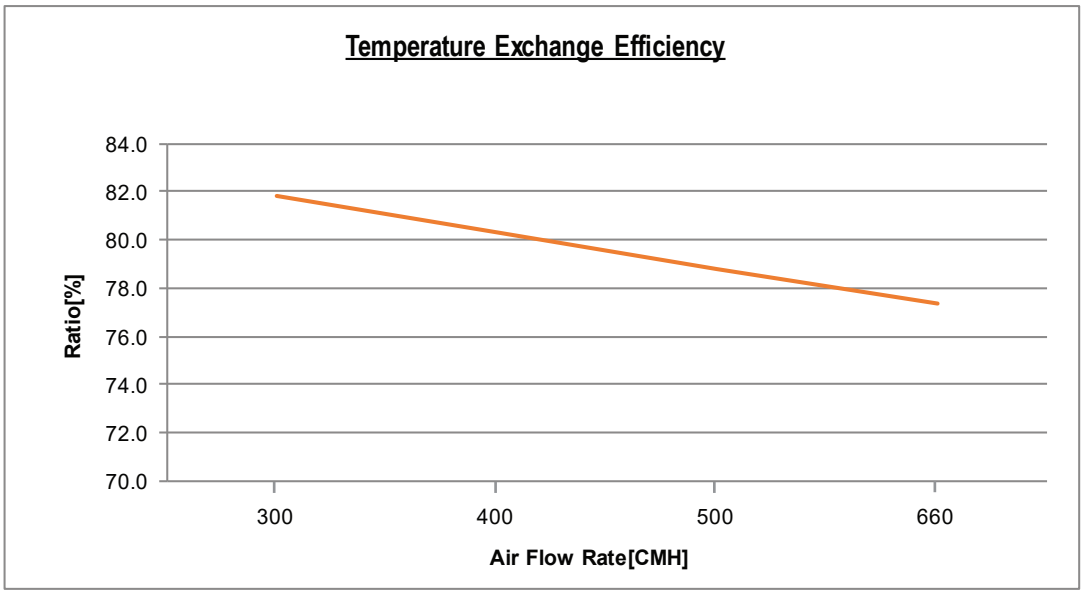




8. Characteristic Curve

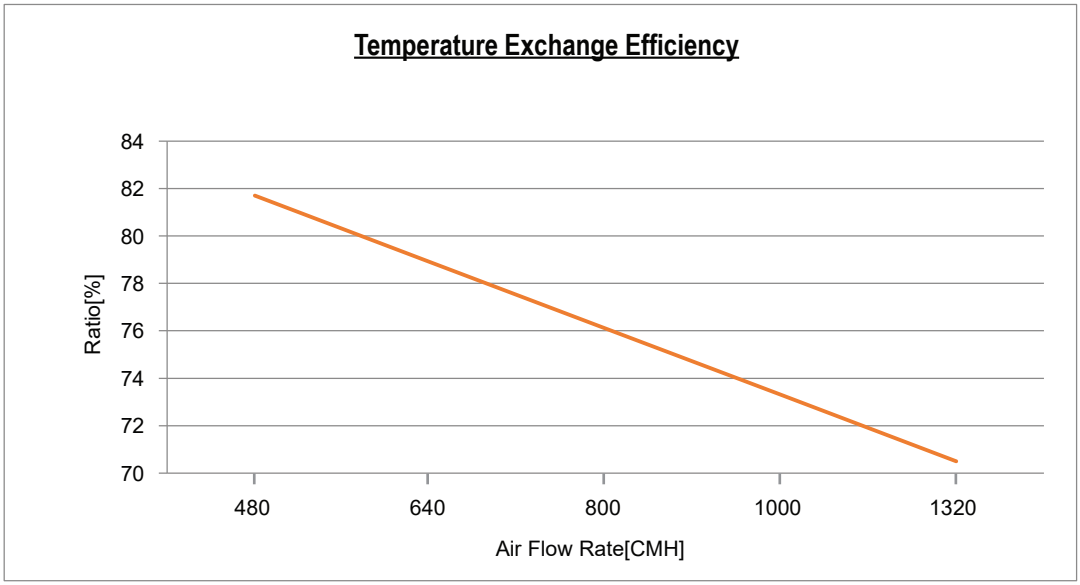
8.1 Efficiency (Temperature Exchange)

ZE050GUCCA0



8. Characteristic Curve

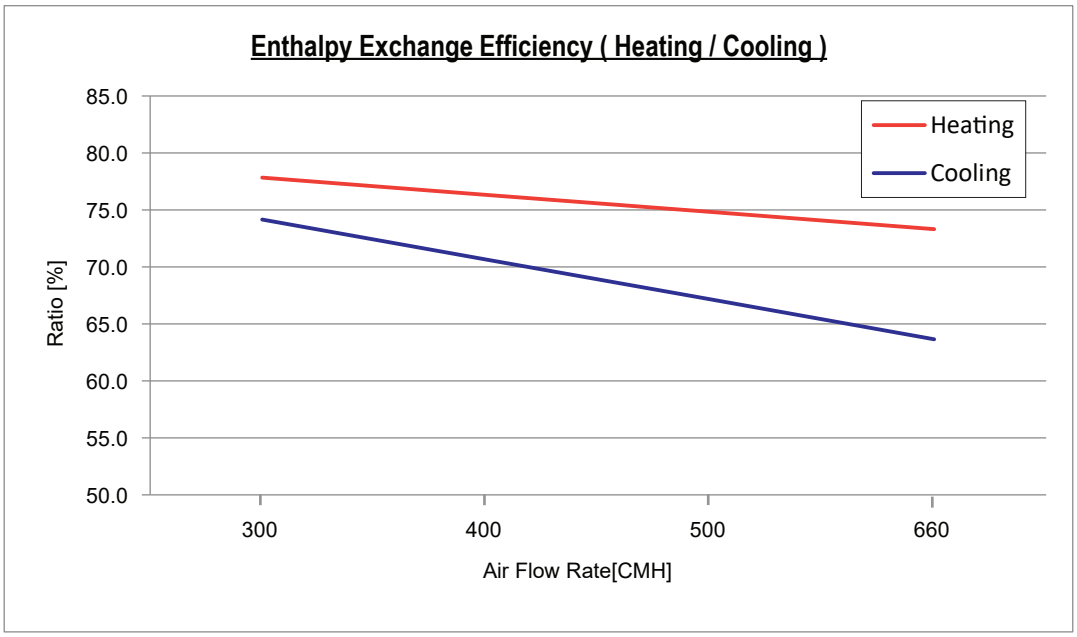
ZE080GUCDA0, ZE100GUCDA0



8. Characteristic Curve

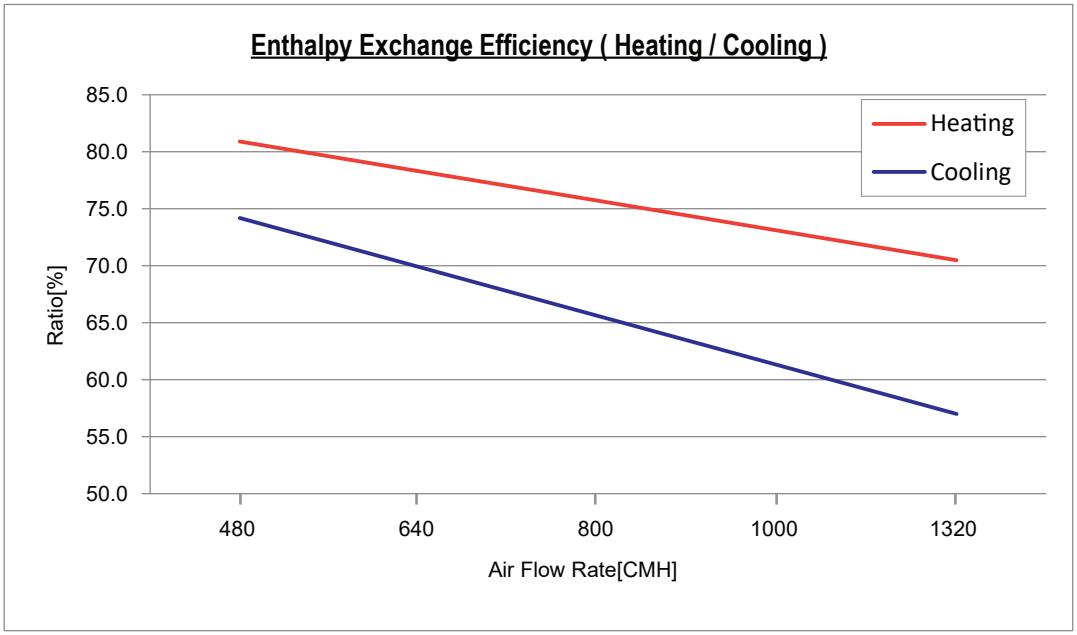
8.2 Efficiency (Enthalpy Exchage)

ZE050GUCCA0



8. Characteristic Curve

ZE080GUCDA0, ZE100GUCDA0



Installation

Installation of Indoor Unit

1. Selection of The Best Location

When selecting a location the product is installed, it is recommended to consider the following:

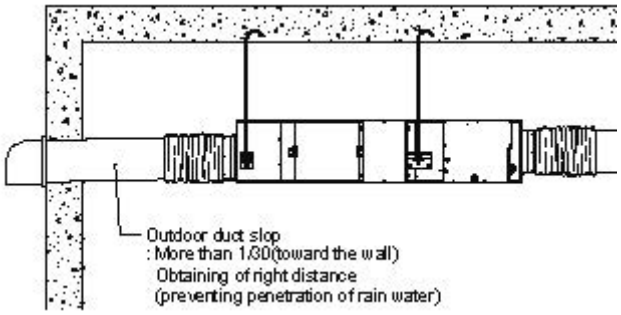
- The unit must be installed indoor area.
- Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of weight of the unit.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient.
- The servicing inspection hole of the ceiling should be larger than the indoor unit, and that location should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
  1) Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
     These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
     In these cases, take the following actions;
     - Make sure that ventilation fan is enough to cover all noxious gases from this place.
     - Ensure enough distance from the cooking room to install the unit in such a place where it may not suck oily steam.
  2) Avoid installing the unit in such places where cooking oil or iron powder is generated.
  3) Avoid places where inflammable gas is generated.
  4) Avoid places where noxious gas is generated.
  5) Avoid places near high frequency generators.

< ! > CAUTIONS

- If the temperature rise above 30℃ or the humidity rise above RH 80%, additional insulation working is needed to the unit body for protection of dew formation.
  – Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

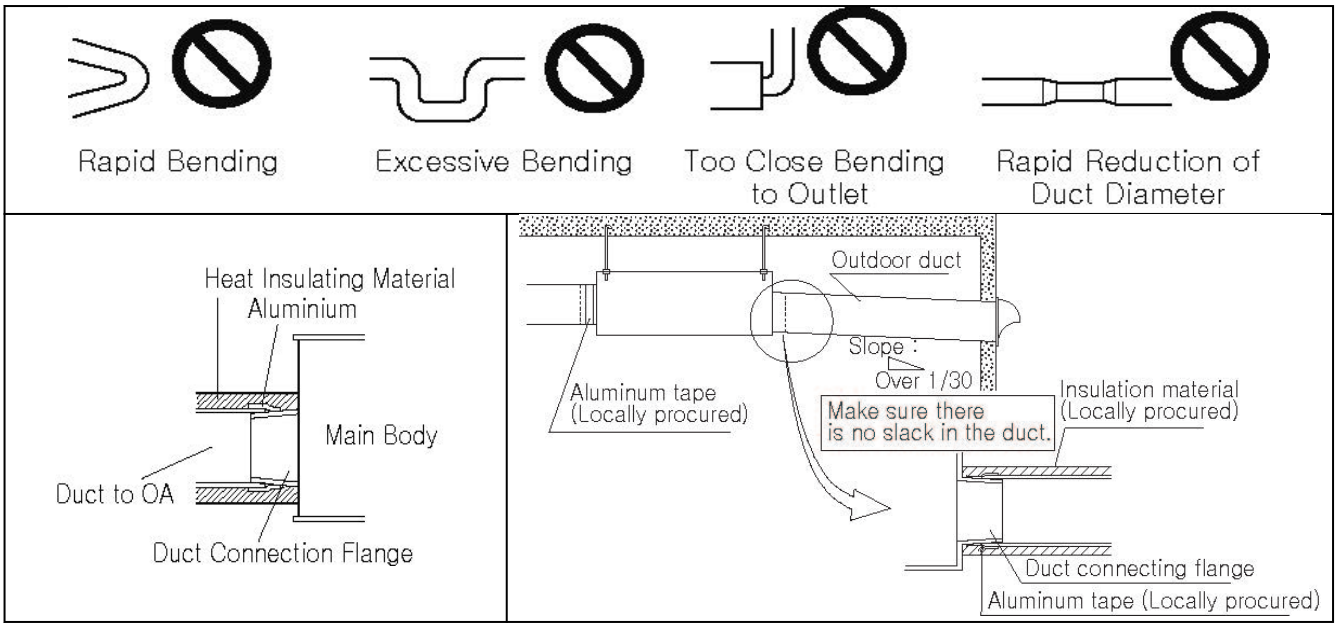
2. Connecting Duct

- After securely connect the duct with the duct connection flange, wrap it with a commercial aluminium tape so that air cannot be leaked.
- Adjust the duct from the ceiling so that no force is applied to the main body of the ventilation system.
- Always use two ducts at the outdoor with the heat insulating material for prevention of dewing.



< ! > CAUTION

- Check that there are no foreign materials (paper, vinyl, etc) or cutoff powders in the duct before connecting the duct.
- Take care so that shock may not be applied to the damper plate within the main body when performing the duct connection work.
- It is recommended to perform adiabatic treatment even to the duct pipe at the indoor side where ambient temperature is expected when the main body of the ventilation system for cooling in summer.
- Take care so that work may not be performed as in the figure. Otherwise, it may cause reduction of air volume or abnormal noise.



- The change of air discharge grill's location should be examined when the cold draft from air discharge grill is feared. The fan is driving while defrost operation, and the cold air is often blowing.

3. Connecting Pipes

■ Refrigerant piping work

To detail information for connecting the refrigerant pipes, please refer to the installation manual included with product.

< ! > CAUTIONS

- When mechanical connectors are reused, indoors' sealing parts shall be renewed.
- When flared joints are reused, indoors' the flare part shall be re-fabricated.

■ Piping insulation work

- Perform heat insulation work completely on both gas and the liquid pipe.
  Because improper insulation will result condensate formation over pipe.
- Use the heat insulation material for the refrigerant piping which has an excellent heat resistance (over 120°C (248°F)).
- Precautions in high humidity circumstance
  - This air conditioner has been tested according to the "KS Conditions" and confirmed.
  - If it is operated for a long time in high humid atmosphere (dew point temperature: more than 23°C(73°F)), water drops are liable to fall. In this case, add heat insulation material according to the following procedure.
    : Heat insulation material : Adiabatic glass wool with thickness of 10~20mm(13/32 ~13/16 inch).
    : Stick glass wool on all air conditioners that are located in ceiling atmosphere.

< ! > CAUTIONS

- Make sure to insulate any field piping all the way to the piping connection inside the unit.
  Any exposed piping may cause condensation or burns if touched.

4. Electrical Wiring

4.1 General Instruction

For wiring work, it is recommended to consider the following:

- All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the ***"WIRING DIAGRAM"*** attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

< ! > CAUTIONS

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for this unit.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source. Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
  (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist. Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
  - Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
  - Proper starting power is not given to the compressor.
  - All of the indoor units and outdoor units shoul be grounded. If grounding is not properly done, there is a risk of electric shock. Grounding must be done by a qualified technician.

■ Wiring Connections

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched.
  If wiring and piping between the outdoor unit and indoor unit are mismatched, the system may cause a malfunction.

< ! > CAUTIONS

- Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened.
  (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

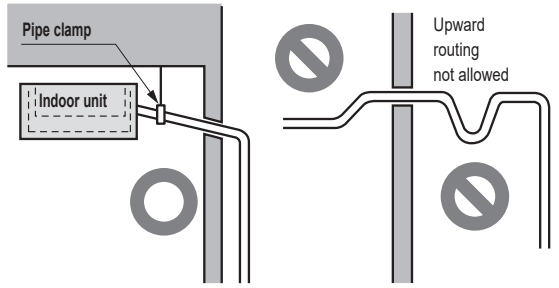
4. Electrical Wiring

4.2 Installation of Wired remote controller(optional)

- Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.
- Install the remote controller about 1.5m (5ft) above the floor in an area with good air circulation at an average temperature.
- Do not install the remote controller where it can be affected by :
  - Drafts, or dead spots behind doors and in corners.
  - Hot or cold air from ducts.
  - Radiant heat from sun or appliances.
  - Concealed pipes and chimneys.
  - Uncontrolled areas such as an outside wall behind the remote controller.
  - This remote controller is equipped with a seven segment LED display. For proper display of the remote controller LED's, the remote controller should be installed properly.
    (The standard height is 1.2~1.5 m (4~5ft) from floor level.)

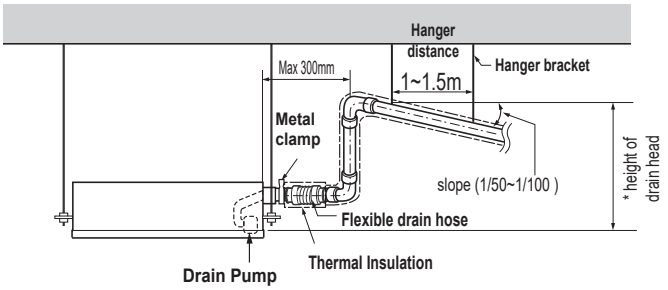
5. Drain Pipe Connection

Fig.1



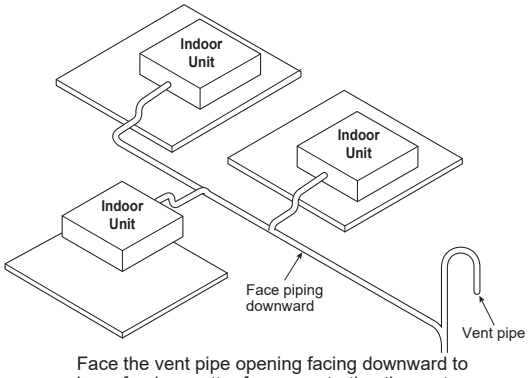
※ According to type of indoor unit, external appearance could be different.

Fig.2



※ * : drain head height should be considered by dimensional drawings of each models.
※ According to type of indoor unit, external appearance could be different.

Fig.4



Face the vent pipe opening facing downward to keep foreign matter from penetrating the system

Fig.3

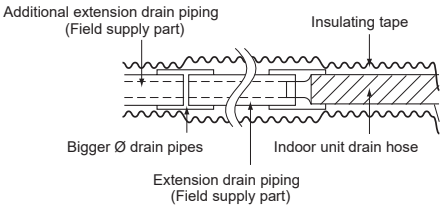
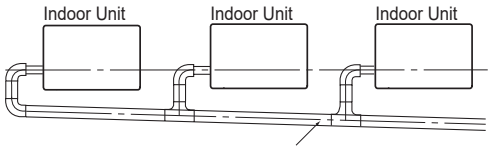


Fig.5



(Slope of at least 1/100)

- The drain pipe should be at least equal in size to drain conduit of the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected a little of water should be added to the drain pan and the drain pump to check and see if it is functioning correctly.
- All connections should be secure. (Special care is needed with PVC pipe)

■ Dimension of drain pipe connection *[Fig.1, Fig.2]*

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
  - Piping material: Use the Polyvinyl chloride pipe. VP 20 or VP 25 pipe fittings.
- Be sure to install heat insulation on the drain piping.
  - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).
- Possible drain head height is specified to range of 700 ~ 800 mm(27-6/19 ~ 31-1/2 inch). So the drain head should be installed below that (Refer to Dimensional Drawings of each).

■ Connection of an auxiliary(flexible) drain hose *[Fig.3]*

- To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. Auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.

< ! > CAUTIONS

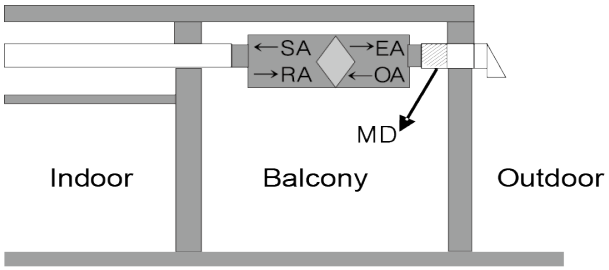
- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.
  - When extending the drain hose, use a commercially available drain extension hose, and be sure to insulate the extended section of the drain hose which is indoors.
  - Make sure the diameter of the extension drain piping is the same as the indoor unit drain hose size or bigger.

■ Ground drain piping *[Fig.4, Fig.5]*

- Select diameter of drain piping which adapts to the capacity of the unit connected. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.

6. M.D(Motorized Damper) Installation Criteria

- Based on the M.D(Motorized Damper) installation



- Outdoor temperature Conditions for normal product operation : -10℃ ~ 40℃
  - Installed at the enterance of the outdoor duct(OA & EA) ventilation device.
  - If the temperature is outside the operating range of the product, there is a risk of condensation occurring inside the Ventilation deviece.
  - Do not install it in a humid place such as a bathrooms.
  - Install MD(Motorized damper) to prevent external air inflow.
  - Do not operate the ventilation system during rain or strong winds as water may flow into the indoors.

Air Solution

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(07336)

http://partner.lge.com

http://sedc.lge.com

The air conditioners manufactured by LG have received ISO9001 certificate for quality assurance and ISO14001 certificate for environmental management system.
The specifications, designs, and information in this brochure are subject to change without notice.